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ABSTRACT

In order to test the effects of financial subsidies on employment for disadvantaged youth, two experimental situations were set up: (1) a worker subsidy operating in Cambridge, Massachusetts, and (2) an employer subsidy operating in Wilkes-Barre, Pennsylvania. The first project, the Cambridge Job Factory Voucher Experiment, tested a voucher payment directly to youth combined with a job search assistance program. In order to separate the effects of these two treatments, two experimental groups (full-treatment and voucher only) and a control group were used. The second project, the Wilkes-Barre Job Search Voucher Experiment, tested the impact of making wage vouchers or tax subsidies available to employers hiring disadvantaged youth. To distinguish the new experimental vouchers from the Target Job Tax Credit (TJTC) already available to firms hiring 18-24 year olds, the new voucher was given only to firms hiring 16-17 year olds. The experimental design was set up in such a way that the new voucher could be compared with TJTC. The findings from the study suggest that employee wage subsidies do raise the employment prospects of disadvantaged youth. Wage subsidies paid directly to youth are more effective than wage subsidies combined with other services such as job search assistance. The study finds no evidence to support the policy of employer-based wage subsidies for hiring disadvantaged youth, either in the form of vouchers or TJTC. (Author/CMG)

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Can Employer or Worker Subsidies Raise Youth Employment?

An Evaluation of Two Financial Incentive Programs for Disadvantaged Youth

by

Cecilia Rivera-Casale, Barry Friedman
and Robert Lerman

FINAL REPORT

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Center for Employment & Income Studies (CEIS)
The Florence Heller Graduate School
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Brandeis University
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Cecilia Rivera-Casale
Barry Friedman
Robert Lerman

September, 1982

Executive Summary

Among the possible reasons for low youth employment, some have emphasized adverse incentives. Employers may find costs of the minimum wage, initial hiring expenses on the job training and fringe benefits too high in relation to the expected marginal productivity of youth to want to hire them. A similar argument could be made on the side of the youth themselves; they may see their potential gain from work too unrewarding in relation to alternative activities. If there is a problem with incentives in youth labor markets, one possible remedy is to change the incentives by offering financial subsidies. This evaluation reports on tests of two types of subsidies: 1) an employer subsidy that operated in Wilkes-Barre, PA; and 2) a worker subsidy that operated in Cambridge, MA.

The Office of Youth Programs (OYP) in the Department of Labor funded these projects as part of the knowledge development effort mandated under YEDPA. These projects also constituted DOL's response to Section 317 of the 1978 CETA reauthorization, under which Congress directed the Secretary to test wage vouchers. Each experiment was initiated within the framework of an existing job search assistance program: the Job Factory run by the Cambridge, Massachusetts CETA Prime Sponsor, and the Workshop Program run by the Youth Employment Service of Luzerne County (YES) in Wilkes-Barre, Pennsylvania. There are two primary advantages to linking the voucher demonstration to job search assistance (JSA) programs. First, it is useful to have JSA agencies provide an administrative mechanism for enrolling and certifying youth as job-ready. JSA programs were a convenient vehicle for reaching employers in Wilkes-Barre and youth in Cambridge who are eligible for subsidy payments. Second, youth who are eligible for the demonstration benefit from a critically important pre-employment service that may increase their probabilities of being hired in the private sector.

The Cambridge Job Factory Voucher Experiment

The project in Cambridge tested a voucher payment directly to youth combined with a job search assistance program. In order to separate the effects of these two treatments, we established two experimental groups (full-treatment and voucher-only), and a control group.

Youth in the full-treatment group received structured intensive job search training and assistance for periods of up to 4 weeks as well as access to a voucher. For each hour of instruction or active job search under the Job Factory, youth received stipends equal to the minimum wage. In addition, youth in the full-treatment or in the voucher-only group who succeeded in obtaining unsubsidized jobs were paid a direct supplemental wage bonus for each hour of paid employment during 12 weeks after their jobs commenced. The vouchers equalled $1.50 per hour for the first two weeks and $1.00 per hour for the subsequent 10 weeks.

The Wilkes-Barre Job Search Voucher Experiment

The Wilkes-Barre project (run by the Youth Employment Service, a local community based organization tested the impact of making wage vouchers or tax subsidies available to employers hiring disadvantaged youth. In Wilkes-Barre the unit of observation was the employer. The design required a three-way division of employers. After stratifying firms by size, industry and location employers were randomly assigned to one of three categories. Employers assigned to Group I were (1) encouraged to hire low income 18-24 year olds and take advantage of TJTC; (2) offered a special wage voucher subsidy to employ 16-17 year olds served by YES program. Employers in Group II were encouraged to use TJTC but had no access to the special wage subsidy for hiring younger youth. Control group employers were not contacted or eligible for the special wage voucher subsidy.

The size of the voucher payment to an eligible employer hiring low income 16-17 year olds was $1.80 per hour during the first three months the youth worked for the firm, and $1.00 per hour for the next five months the youth was employed by the firm. The Workshop program run by YES provided job search assistance to two groups of youth assigned on the basis of income.

Sample

The total number of youth assigned to the Cambridge experiment was 399; 161 in the full-treatment group, 130 in the voucher-only group and 108 in the control group. In Wilkes-Barre 125 employers were assigned to each of the three groups, and 479 youth were enrolled in the two treatment groups.

Summary of Findings

A. Process Analysis Results

The two job search assistance programs experienced implementation difficulties for different reasons. The Cambridge Job Factory operated under the following constraints:

- o Enrollment of participants in the full-treatment group was down compared to last year's enrollment. Job Factory staff relied on interagency referrals as a source of applicants. Instead of developing a recruitment network that could be utilized to attract youth to the program, counselors had to promote and recruit youth a few days before each cycle was to begin.

- The Job Factory program experienced personnel turnover among the top administrators. The last two cycles of the Job Factory were particularly affected by these administrative changes.
- Changes in physical location of the program affected the ability of the staff to perform their training functions.

The Wilkes-Barre program experienced the following difficulties:

- Underenrollment in the first 3 months of program operation.
- Recruitment difficulties that stemmed from competition with other youth programs, e.g., CETA, and the fact that YES did not offer stipend payments for program participation.
- Average amount of program time spent by participants was limited, and generally less than 10 hours.
- Late beginning of promotional activities for the employer voucher program.
- Personnel experienced high turnover rates, both at the executive and the program operator's level.

B. Impact Analysis Results

The evaluation studied differences in the employment levels, quality of jobs found, the persistence of employment effects, and the extent of voucher use.

To summarize, the basic findings of the impact evaluation in Cambridge:

1) a voucher paid to workers consistently raised employment of disadvantaged youth;

2) the voucher impacts rose over time through 5 months after the start of the program;

3) the combined Job Factory plus voucher treatment produced employment gains in the initial period after program startup; but

4) the combined treatment did no better and sometimes worse than the voucher alone in later periods;

5) the positive employment effects in the combined treatment group did not seem to result from more intensive job search assistance;

6) the voucher-only and full treatments appear to have caused only slight increases in job tenure;

7) the voucher-only treatment is able to increase job finding among disadvantaged youth at a lower cost compared to the full treatment.

In Wilkes-Barre, we found:

1) virtually no employers in any of the experimental groups took the voucher or used the TJTC.

2) the lack of response of firms to both the wage subsidy voucher and TJTC cannot be attributed entirely to the employment patterns of selected employers;

3) youth who went through the program showed employment rates as high as those experienced by Cambridge youth.

Policy Implications

Given the small, single site nature of the experiments, we must be cautious in drawing implications and making generalizations. The fact that the demonstrations utilized an experimental design does add some weight to the importance of the findings. Nevertheless, the results can have relevance to national policy only in the context of other studies of program effectiveness and the behavioral responses by workers and firms.

The findings do indicate that the availability of voucher payments encouraged youth to take jobs at lower wages than they would have without the subsidies.

The nonresponse by employers to the offer of subsidies in Wilkes-Barre lend support for the idea that highly targeted subsidies are unlikely to yield gains for disadvantaged workers.

The findings from this study suggest that employee wage subsidies do raise the employment prospects of disadvantaged youth. Wage subsidies paid directly to youth are more effective than wage subsidies combined with other services such as job search assistance. The study finds no evidence to support the policy of employer-based wage subsidies for hiring disadvantaged youth.

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Chapter 1

Introduction

1.0 Introduction

Stimulating private jobs for disadvantaged youth is an objective widely shared by the public and their representatives in the executive and legislative branches of government. In 1977, the Congress recognized that in spite of years of program experience, no one could show which kinds of initiatives could do most to accomplish this and other youth policy goals. To learn more about what programs are likely to work best, the Congress passed and the President signed the Youth Employment Demonstration Projects Act (YEDPA). YEDPA authorized not only several major operational youth programs, but also an unprecedented amount of money for research and demonstration projects. The projects evaluated in this report constitute a very small part of the overall knowledge development effort mounted by the Department of Labor in response to this congressional mandate.

The two demonstrations are a partial test of the effects of providing voucher subsidies and job search assistance on the employment of low income youth. The projects grow out of a long process of deciding on a variety of approaches for expanding the number of private jobs for disadvantaged youth. In 1978, the Department of Labor's Office of Youth Programs (OYP) commissioned design work on how best to test the employment subsidy approach. In the same year, the Congress passed an actual employment tax credit for the hiring of disadvantaged workers, including low income youth, age 18 to 24. Although the enactment of this tax credit (the Targeted Jobs Tax Credit-TJTC) emphasized the importance of studying the impact of employment subsidies, it also complicated the mounting of a demonstration project for this purpose. Any demonstration project would have to take account of the fact that firms already had access to a subsidy for the hiring of all low income youth.

The passage of TJTC caused DOL to rethink the idea of mounting a demonstration project to test the subsidy concept. Given the existence of a national program, some in the Department of Labor argued for using the research money to evaluate the program itself rather than a limited demonstration that would operate alongside the TJTC. Meanwhile, certain members of Congress, most notably Senator Lawton Chiles, pressed the Labor Department to move ahead with a voucher demonstration project, even during the years when employers qualified for TJTC.

As part of the effort to design sound demonstrations that took account of existing TJTC and WIN/welfare tax credits, DOL decided to fund the two projects evaluated in this report.

1.1 The Wilkes-Barre and Cambridge Voucher/Job Search Projects

The voucher/job search demonstration projects came about when DOL officials concluded that two organizations that had been operating job search assistance projects could serve as convenient vehicles for mounting a test of the employment subsidy concept.[1] After all, it seemed clear that not all subsidy programs could be self-administering. Moreover, to the extent that those marketing the subsidies had specific youth who wanted jobs, one might expect the offer of subsidies to appear less of an artificial exercise and more of a genuine effort to try new ways to place specific young workers. The design of the two projects was a collaborative effort between DOL officials, managers of the two job search assistance demonstration projects, and the evaluation staff of Brandeis University's Center for Employment & Income Studies.

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[1] The Center for Employment & Income Studies evaluated these two programs in an earlier study. See, The Effectiveness of Two Job Search Assistance Programs for Disadvantaged Youth, by Hahn et al. 1981

To permit the two demonstrations to operate sensibly alongside the existing tax credit programs, DOL decided to test an alternative set of approaches. In particular, the voucher/job search projects combined vouchers with job search assistance, counseling and placement; the vouchers differed considerably in form and eligibility from TJTC. In one site the voucher payment would be made directly to the young worker, while in the other, the voucher would go to the firm hiring young workers.

The Wilkes-Barre, PA project tested the impact of vouchers given to employers. The problem was to distinguish the new experimental vouchers from the TJTC which was already available. Since TJTC is available to firms hiring 18-24 year olds, the new voucher was given only to firms hiring 16-17 year olds. In addition an experimental design was developed to compare the new voucher with TJTC. The design of the project involved drawing a sample of employers, stratified by the youth share of employment in the firm's industry, and randomly assigning employers to one of three groups. Job developers from the community-based job counseling agency, the Youth Employment Service (YES), would visit firms in the first and second groups and try to stimulate employers to hire youth going through YES. At the same time, these job developers would explain the subsidies available to the specific firm for hiring any low income youth, not just those served by YES. Firms in the first group had access to a special cash subsidy for employing any low income 16-17 year-old worker; firms in both the first and the second groups were told of the TJTC and encouraged to use it to offset the costs of employing low income 18-24 year-olds. The firms assigned to the third group served as controls. YES job developers specifically avoided visiting these firms, although interviewers were to follow the hiring patterns of control group firms.

In short, the Wilkes-Barre model served to test:

1) the effect of providing subsidies to firms hiring 16-17 year-olds; and

2) the effect of utilizing TJTC as a marketing tool for obtaining jobs for youth.

The Cambridge, Massachusetts Voucher/Job Factory project differed in several ways from the Wilkes-Barre project. In Cambridge, the local CETA prime sponsor ran a job search program that was highly structured, intensive, stressing self-directed placement and group dynamics. In Wilkes-Barre, a local community-based organization (YES) operated an informal, short duration program that emphasized individual counseling and agency job placement. The Cambridge Job Factory participants received stipends for hours of job search while the Wilkes-Barre youth did not.

In the context of the voucher issue, the most important distinction between the two projects was who received the voucher payments. In Wilkes-Barre, one set of the treatment group firms were eligible for vouchers when they hired low income youth. In Cambridge, youth in one of two treatment groups qualified for vouchers if they worked in private jobs.

Youth applying for the Cambridge, Massachusetts Voucher/Job Factory were randomly assigned into one of three groups. The first group could enter the Job Factory and qualified for the voucher. The second group qualified for the voucher but not for the Job Factory. The third group did not qualify for either program. Those eligible for the voucher could claim payments for each hour of employment over a 12-week period starting at the end of the Job Factory cycle.

The payment was $1.50 per hour for the first two weeks and $1.00 per hour for the next 10 weeks.

Thus, the Cambridge Voucher/Job Factory demonstration served as a test of:

1) the impact of providing a wage subsidy to young workers on the extent, speed, and duration of job finding; and
2) the impact of combining a wage subsidy with a job finding club in helping and stimulating low income youth to find jobs.

1.2 The Plan of This Report

The purpose of this report is to evaluate the effectiveness of the two voucher/job search demonstrations. Before describing the operations of the projects and analyzing their employment effects, we provide in the next chapter a background on employment subsidy issues and experience. Chapter 3 describes the Cambridge demonstration. The emphasis in this chapter is on the process analysis of the operations in Cambridge. Chapter 4 evaluates the impacts of the Cambridge demonstration and reviews what was learned about running a worker wage subsidy. Chapter 5 describes and evaluates the employer wage subsidy program in Wilkes-Barre. Chapter 6 concludes with some observations on what the evaluation results mean for those considering the role of employment subsidy programs.

Chapter 2

Review of Literature on Employment Subsidies

2.0 Background on Employment Subsidy Issues

Using subsidies to stimulate private employers to hire disadvantaged workers has appealed to public officials in several countries for many years. What is especially appealing about the subsidy approach is the opportunity for the government to help move disadvantaged workers directly into private jobs at a lower cost than paying the worker's full salary or providing training. By offering financial incentives, the government can rely on the self-interest of firms rather than on the effectiveness of government programs to increase the employment of disadvantaged workers.

Employment subsidies are one of a number of tools available to reduce structural unemployment. The renewed interest in employment subsidies has come about because of the inability of Western economies to achieve full employment without inflation, and because of the skepticism about the cost-effectiveness of many work experience and training programs. Opposition to selective employment subsidies has historically come from some union groups who feared that hiring stimulated by the subsidy might displace their members or who believed that the subsidies would simply add to the profits of firms without aiding disadvantaged workers. For this reason, subsidies for disadvantaged workers are easiest to implement in high employment periods.

The impetus for two demonstrations evaluated in this report came in 1978, a high employment period. At that time, Senator Lawton Chiles proposed a demonstration project to test the effectiveness of an approach that provided disadvantaged workers with vouchers that prospective employers could use to offset part of costs of hiring such workers. To quote the Senator from the August 25, 1978 Congressional Record:

> Disadvantaged youth have a cluster of attributes which keep them out of jobs: lack of skills, no experience, poor work attitudes and expectations, too low productivity to justify the Federal minimum wage or minimum union scale. An effective program should seek to modify all of the factors and do so in a way that is most attractive to private employers.

Senator Chiles suggested that a voucher of about $1.00 might reduce the costs of hiring enough to encourage firms to hire more disadvantaged youth.

2.1 Theory and Practice in Employer Wage Subsidies

The theory underlying the voucher concept is that firms decide on their mix of workers on the basis of their relative costs as compared to their relative productivity. As the wage falls among a group of workers, firms have an incentive to employ more from this group. A variety of studies have documented the general tendency for firms to act in this way. When the costs of employing one and only one group of workers falls, firms become willing to hire more of these workers to shift from one type of skill mix to another, to produce additional output (now that their costs have fallen), and to redistribute jobs from unsubsidized to subsidized workers of similar skill.

Hamermesh and Grant summarize the empirical evidence on the response by employers to changes in wages of selected groups of workers. The estimates drawn from a variety of individual studies suggest that as wages of low skill workers or of young workers fall relative to wages of other workers, employers raise their utilization of these groups of workers. The studies indicate that a 1 percent change in the wage of young workers (holding constant the wages of other workers and the price of capital) would result in more than a 1 percent increase in the employment of young workers.

In spite of these and other studies suggesting that firms alter their hiring behavior in response to changes in labor costs, government efforts to subsidize the labor costs of disadvantaged workers have yielded meager results. Although detailed evaluations of such programs are rare, what evidence there is about the WIN and WIN/Welfare tax credit and the contract component of JOBS (Job Opportunities in the Business Sector) suggests that the selective subsidies to firms have done little to raise the employment levels of disadvantaged workers.

Why these subsidies did not succeed is not well understood. However, there are a number of potential factors that may account for the weak effects of selective employer subsidies. First, it takes time for firms to learn about the subsidies and take them into account when making hiring decisions. Second, the requirement that workers may be certified as fitting into a disadvantaged category means that firms may have to alter their recruitment behavior in order to take full advantage of the subsidy. Another cause may be the potential stigma associated with the very eligibility of workers for subsidies. While firms already realize that many potential workers come from a disadvantaged category, the formal link between the subsidy and the categorizing of workers may make firms wary of who qualify for special government assistance.

The weaknesses of the selective employment subsidies in the late 1960s and early 1970s did not cause public officials and researchers to lose interest in the approach. In 1978, President Carter proposed and the Congress enacted the Targeted Jobs Tax Credit (TJTC). At the same time, the 1978 reauthorization of CETA called for demonstrations testing the employment subsidy approach. The Wilkes-Barre voucher project and the comparison approach in Cambridge are two of the demonstrations implemented in response to these provisions of the CETA reauthorization. As the TJTC and the demonstrations came into operation, researchers regained interest in the subject of selective employment subsidies. In 1982, the Brookings Institution published a compendium of studies on employment subsidies, edited by Haveman and Palmer.

The papers in the Brookings volume cover a wide variety of subjects, ranging from the macroeconomic effects of employment subsidies to administrative issues in operating subsidy programs. Bishop and Wilson deal with employment subsidies available to all firms who increase employment, regardless of who are the newly hired workers. The New Jobs Tax Credit, enacted in 1977 and phased out in 1978, was an example of this type of subsidy. Under the New Jobs Tax Credit, firms could claim a tax credit for increasing employment by at least 2 percent more than employment in the base year. The nature of the tax credit rules were such as to reward increases in employment of workers earning no more than $4200 per year. As a result, although the credit was not targeted by characteristics of workers, it did give firms an incentive to increase their employment with low wage rather than with medium or high wage workers.

The few empirical studies of the New Jobs Tax Credit indicated that the subsidy did indeed stimulate employment. Perloff and Wachter compared the employment growth of firms that knew about NJTC with firms that did not.

It turned out that employment growth was higher among firms that knew than among similar firms that did not know about NJTC. This would indicate that NJTC induced increased hiring. Bishop and Haveman tried to determine NJTC's impact on employment by analyzing employment trends in industries likely to gain most from taking advantage of the subsidy. In general, these were firms in the construction and retail trade industries. When relating employment trends in these industries to the introduction and spread of knowledge about NJTC, Bishop and Havemen find a positive and significant effect generated by the subsidy.

Other studies have focussed on the macro effects of selective employment subsidies. The key idea is that, if selective subsidies can target increases in the demand for workers on the lowest skill groups, reductions in unemployment can occur with little cost in added inflation. Of course, the positive macroeconomic effects can only take place if the employer subsidies actually cause firms to hire more low skill workers. Nichols concludes that were subsidies effective in raising demand for low wage relative to high wage workers, selective employment subsidies could do better than general macroeconomic tools in limiting the inflationary impact of reductions in unemployment.

In a paper highly relevant to the two demonstrations examined in this report, Lerman compared subsidy programs whose payments go directly to workers with the more conventional programs whose payments go to firms hiring particular categories of workers. This distinction mirrors the actual difference in the structure of the two demonstrations reviewed here. The Cambridge voucher demonstration project is an example of a worker wage subsidy, while the Wilkes-Barre project involved a selective employer wage subsidy.

Until recently, analysts had examined the worker wage subsidy almost entirely from the standpoint of its potential role as an income maintenance tool. Generally, a worker wage subsidy is a payment directly to low income workers earning low wages. The primary purpose is to supplement the income of low income families in a way that encourages work effort by family members. The structure of most worker wage subsidies is:

$$S = r(TW - W),$$

where S is the hourly subsidy payment, r is the subsidy rate, TW is the target wage, and W is the worker's presubsidy wage. An example of a specific schedule is for r = .5 and TW = \$5.50. Then, workers whose presubsidy wage was \$3.50 would receive \$1.00 per hour, or .5(5.50-3.50). In the context of income maintenance proposals, worker wage subsidies are usually made available only to the family head or the family's primary earner. Such restrictions are necessary to target the subsidies on low income families, since many low wage workers live in middle income families.

Although analysts have usually emphasized the worker wage subsidy's income supplement role, there are reasons for believing that a worker subsidy can increase employment of disadvantaged workers. The first possibility is that the worker subsidy increases the incentive to work of persons who often face weak financial incentives due to low market wages (relative to alternative uses of time), the availability of welfare income, and the benefit reduction rate applied against welfare income. For a worker in a family receiving AFDC and food stamps, the added income coming from a \$4.00 per hour job might total well less than \$1.00 per hour. By supplementing the wage, a worker wage subsidy raises the hourly return of those working at a low wage job. The second possibility is that worker subsidies reduce the gain from searching for a $5.00 per hour job instead of accepting a $3.50 per hour job would fall from $1.50 per hour ($5.00-3.50) to $0.50 per hour ($5.00-4.50). The decline in the potential gain from search might increase employment.

The question of how worker subsidies compare with employer subsidies turns out to depend on several factors. Under a common model of structural unemployment, disadvantaged workers cannot find jobs in high employment periods because their productivity falls below the legal or social minimum wage. This would suggest that a subsidy to firms hiring disadvantaged workers would bring down labor costs enough to offset the lower productivity of disadvantaged workers. But, as Lerman and Johnson show, providing a subsidy for firms to hire a segment of low wage workers might simply redistribute rather than reduce total unemployment. If the subsidy applied only to a share of low wage workers, then firms would hire subsidized before hiring unsubsidized low wage workers: However, after firms exhaust the available subsidized workers, their demand for additional workers would be unaffected by the subsidy. As a result, the minimum wage would continue to limit wage flexibility and keep the same number of low wage workers unemployed as before the subsidy.

Other factors cast doubt on the ability of selective employer subsidies even to redistribute employment toward the subsidy-eligible group. As noted above, the subsidy program may affect too few workers for employers to respond by altering their recruitment practices. Data from the WIN/welfare tax credit and from the TJTC indicate that many employers hire subsidy-eligible workers without actually claiming the subsidy. As of September 1980, only about 115,000 jobs going to disadvantaged youth were certified in a way that allowed firms to claim the TJTC. This figure is about 5 percent of the approximately 2 million hires of disadvantaged youth that occur annually without the subsidy. In the case of the WIN/welfare credit, only 19 percent of job entries occurring through the WIN program itself involved the tax credit. Since many welfare recipients take jobs that are not WIN placements, the overall take-up by firms of potential tax credits was actually below 19 percent.

One advantantage of paying directly to workers is the increase in the actual utilization and thus potential impact of the subsidy. Since the subsidy is a much larger component of total income when paid to the worker than when paid to the firm, fewer of those eligible are likely to ignore the subsidy. The issue of participation is an important aspect of this evaluation.

Given the uncertainties in the economic and noneconomic effects of alternative subsidy approaches, Lerman concludes that the worker subsidy may raise employment of disadvantaged workers as much or more than subsidies to employers for hiring disadvantaged workers. This evaluation does not provide a direct empirical test of the two approaches, since the site and other variations occur alongside differences in subsidy design. However, comparing the demonstration outcomes do yield results on some of the differences in outcomes that can be expected between worker and employer subsidy programs.

2.2 Experience with the Targeted Jobs Tax Credit

The TJTC has been by far the largest selective employer subsidy program that has operated in the U.S. When implemented in early 1979, TJTC allowed employers to claim tax credits for employing workers from any of the following categories:

--economically disadvantaged youth, age 18 to 24;

--economically disadvantaged Vietnam-era veterans and ex-felons;

--recipients of local welfare (general assistance) programs or Supplemental Security Income benefits;

--handicapped persons participating in a vocational rehabilitation program; and

--youth, age 16-19, in high school cooperative education programs.

Under the TJTC, employers hiring a worker certified as belonging to one of these groups could claim a tax credit equal to 50 percent of the first $6000 of the worker's earnings. While firms claiming the TJTC had to reduce their normal wage deductions by the amount of the credit, the credit still represented an effective 50 percent reduction in the gross and net labor costs of hiring eligible workers.

The administration of TJTC yielded a program similar to the voucher approach described by Senator Chiles. After certifying the eligibility of workers, the Employment Service provided those in TJTC groups with vouchers that could be shown to prospective employers during job search. The employer would see from the voucher that the firm would qualify for tax credits by hiring the particular worker. If the firm hired the worker, it would then send part of the voucher form to the Employment Service, which, in turn, would send the firm a certification that verified the fact that the firm could indeed claim TJTC on behalf of the particular worker.

Unfortunately, this apparently simple administrative design was complicated in practice. Initially, many local employment service offices resisted taking an active role in implementing TJTC partly because of a lack of money to administer the effort and partly because of the belief that TJTC provided a windfall to employers and offered little benefit to disadvantaged workers. Additional problems arose as a result of confusion at the local level over which agency had primary responsibility for TJTC, the lack of enthusiasm and time among CETA prime sponsors, delays in the issuing of regulations by the Internal Revenue Service, and inadequate publicity at the national and local levels.

In spite of the variety of implementation problems, TJTC did provide firms with subsidies for employing over 600,000 eligible workers. After a slow start, TJTC-subsidized hires increased to an annual rate of 400,000 during the first three quarters of Fiscal Year 1981. Among low income youth only, TJTC hires over the same period reached an annual rate of 170,000. However, the target group for whom employers claimed the largest number of credits were students from cooperative education programs, the least disadvantaged of the TJTC groups.

Since there was no comprehensive evaluation of the extent to which TJTC increased employment or earnings of disadvantaged workers, we cannot draw any hard conclusions about the overall success of the approach. A report by Ripley cast doubt on the idea that TJTC had a significant effect on the hiring of TJTC target groups. It is clear that TJTC hires failed to exert a detectable impact on the employment-population ratios of low income youth and that TJTC hires of disadvantaged youth were a small proportion of the number of disadvantaged youth that would have been hired in the absence of the program. Finally, anecdotal evidence indicates that most TJTC certifications took place when firms asked the Employment Service to determine for which existing employees could the firm claim tax credits.

On the positive side, one can cite facts showing that:

--TJTC hires far exceeded hires under several years of activity under the WIN tax credit;

--TJTC hires of disadvantaged youth increased rapidly and steadily over the first few years of the program; and

--a moderate share of employers reported using TJTC to increase overall or target group employment.

In the absence of an impact evaluation of TJTC, one can only guess at the net effect on employment of disadvantaged workers per dollar spent on the program. Nevertheless, the TJTC experience does offer lessons about the difficulties of implementing an employer subsidy targeted on disadvantaged workers.

2.3 Outcomes of Employer Subsidy Demonstration Projects

The Department of Labor supported two employer subsidy demonstration projects in addition to the demonstrations reviewed in this report. The other projects were components of a larger demonstration aimed at testing the effectiveness of providing job guarantees for youth and for low income heads of families.

The Office of Youth Programs, Department of Labor, sponsored an experimental test of the employer subsidy concept as part of the Youth Incentive Entitlement Pilot Projects (YIEPP). Under this demonstration, called the Wage Subsidy Variation Experiment, job developers contacted firms and offered them subsidies for hiring low income youth that varied randomly with the firm. In Detroit, firms had access to either a 100 percent or a 75 percent subsidy. In Baltimore, firms qualified for either a 50 or 100 percent subsidy on the basis of their location. Firms that were unlikely to hire youth or were inappropriate employers as well as firms that had already hired youth under YIEPP could not participate in the experiment. The job development took place in early 1980 but were available to firms only through August 1980. This period coincided with a general economic downturn.

The results of the experiment are clear but the appropriate interpretation is not. Of 2259 firms contacted, nearly 13 percent agreed to employ a low income youth using the subsidy. The share of firms participating varied by city and by subsidy rate as follows.

	100% subsidy	75% subsidy	50% subsidy
Baltimore	20.1		7.5
Detroit	15.6	7.7	

The results are consistent with the notion that high subsidy rates can induce more hiring of disadvantaged youth than low subsidy rates. However, the experiment does not show the overall effect of the subsidies because we do not know how many disadvantaged youth would have been hired in the absence of the subsidy. No firms were included in the experiment and not offered a subsidy.

The numbers available on the overall effect of the Wage Variation experiment have been subject to differing interpretations. Some have maintained that achieving only a 15 to 20 percent participation rate among firms offered a 100 percent subsidy indicates that employer subsidies for hiring disadvantaged youth are unlikely to succeed. Others take a less pessimistic view of the results. They note that restrictions on the use of the subsidy may have limited the extent of hiring. Employers had to tailor jobs to the school day or summer schedules, had to accept YIEPP referrals instead of any low income youth, and had to make hires within a few months of learning about the program. Still, 7.5 percent of firms eligible for a partial subsidy chose to participate.

In a statistical analysis of the Wage Subsidy Variation Experiment, researchers from the Manpower Development Research Corporation (MDRC) estimated that cutting the percentage of earnings subsidized from 100 to 75 percent reduces participation from 18 percent of firms to 10 percent of firms. A further reduction from a 75 to a 50 percent subsidy rate would lower the share of firms willing to hire youth from 19 to 5 percent. The numbers do not indicate whether the effects on youth hired exactly mirror the effects on the share of firms participating.

While overall participation by firms appeared low, some types of firms showed substantially higher participation. The statistical analysis indicates that, among firms that have employed youth and that planned to increase employment, even a 50 percent subsidy rate elicited participation by 30 percent of the firms.

The Employment Opportunities Pilot Project (EOPP) also staged an experiment to test the efficacy of providing firms with subsidies to hire disadvantaged workers. The EOPP experiment, staged in Dayton, Ohio, differed in several ways from the Wage Subsidy Variation Experiment. Under EOPP, the target group of workers was primary earners in heads of families on welfare. The administration of the EOPP voucher involved giving workers vouchers to aid in their job search. The program operators did not approach specific employers with subsidy offers. Thus, where the employer was the unit of analysis in the YIEPP demonstration, EOPP's focus was on the relative success of various groups of workers.

The EOPP voucher demonstration divided eligible workers into three groups. All groups received intensive instruction in job search techniques. Program operators gave two groups vouchers that entitled employers to subsidies of 50 percent of first year wages (up to $6000) and 25 percent of second year wages (up to $6000). However, one group carried vouchers that qualified firms hiring the workers to the federal tax crdits, while the other group's vouchers gave firms access to direct cash reimbursement every quarter. The distinction permitted an analysis of whether direct cash subsidies or indirect tax credit subsidies induced larger responses by firms.

An analysis of the results of this experiment showed that the vouchers did not have a positive effect on the employment of workers eligible for vouchers. In fact, the job finding rate (covering the first 5 months of the test) was higher among the controls (those not provided with a voucher) than those who received vouchers. Both groups of workers provided with vouchers had the same 13 percent job finding rate, while the controls showed a job finding rate of 20 percent.

Another illustration of the failure of the vouchers to stimulate employment is the meager total use of vouchers. Although hundreds of vouchers were issued to eligible workers, employers ended up using only 19. Moreover, many employers hiring voucher eligibles did not even claim the subsidy. Of the workers issued tax credit or direct reimbursement vouchers, 70 found jobs, but employers claimed subsidies only on behalf of 19. This means that in the case of about 3 out of 4 jobs covered by subsidies, firms failed to take advantage of the subsidy.

The Wage Subsidy Variation Experiment and the EOPP Voucher Experiment resemble the voucher demonstrations reviewed in this report. Like the Wage Subsidy Variation Experiment, the Wilkes-Barre demonstration divided firms randomly into groups offered varying subsidy packages. The packages were somewhat similar to what was offered under EOPP, since one group of firms were encouraged to use an existing tax credit program and another had special access to a direct reimbursement subsidy. The Cambridge Job Factory/Voucher Experiment was similar to the EOPP voucher project in that the voucher feature operated in combination with a job finding club. However, unlike the EOPP project, which offered subsidies to employers, the Cambridge demonstration involved providing wage subsidies to young workers.

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Chapter 3

The Job Search Wage Subsidy Project in Cambridge

The first section of this chapter describes the design of the job search voucher project and its intended operation. The second section provides a process analysis which examines the implementation and actual operation of the program. Chapter 4 will examine the impacts of the Cambridge experimental treatments on youth work behavior.

3.0 Design of the Experiment

3.1 The Treatments

The project in Cambridge tests a voucher payment directly to youth combined with a job search assistance program. While an employer voucher plan aimed to increase youth employment by increasing the demand for labor, a youth voucher plan was directed at the same objective, but by increasing the supply of labor. The idea is that youth may be discouraged from working by the low pay they receive. A voucher, related to the amount they work, may induce them to work more even if the actual wage paid by the employer remains low.

In Cambridge the unit of observation was the youth in contrast to Wilkes-Barre where it was the employer. Focusing on the behavior of youth introduced the complication that the youth were really receiving two treatments, the job search assistance program together with the voucher for working. In order to separate the effects of these two treatments, we established two experimental groups plus a control group. Table 3-1 summarizes the treatments.

Table 3-1

Summary of Experimental Interventions in Cambridge

Activity	Full Treatment (Group 1)	Voucher Only (Group 2)	Control Group
Participation in Job Search Assistance Program	Yes	No	No
Payment of Voucher	Yes	Yes	No

Forty percent of eligible youth were assigned to the full treatment group and 30 percent to each of the other two. Youth in the full treatment group were eligible for the voucher and in addition attended the Job Factory for periods of up to four weeks in which they received structured, intensive job search training and assistance. Youth in the voucher only group were eligible for the voucher, but not for the Job Factory. Those in the control group received neither treatment. This design allowed us to study the following principal hypotheses:

(1) A voucher bonus can increase the rates at which youth seek, accept, and keep jobs. If so, it means that one reason for high youth unemployment may be the low economic rewards of working.

(2) A voucher bonus in conjunction with a job search assistance program is more effective than the bonus alone. This would mean that the youth need not only incentives, but also skills in seeking jobs. (The pure effect of the job search assistance program in Cambridge was evaluated by Brandeis researchers in an experiment running from May 1979 to September 1980. There could be a significant interaction between the job search assistance and the voucher bonus.)[1]

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[1] See, The Effectiveness of Two Job Search Assistance Programs for Disadvantaged Youth, by Hahn et al., CEIS, 1981.

Consider now the two treatments in more detail.

a. The Voucher

The voucher itself was available to those in both the full-treatment and voucher-only group who succeeded in finding unsubsidized jobs. The voucher involved the payment of a direct, supplemental wage bonus for each hour of paid employment after the job commenced. Voucher payments were computed as follows:

(1) A payment of $1.50 per hour for up to 48 hours of paid work per week during the first two weeks of a job. There is, however, the restriction that the $1.50 payments cease two weeks after the closing date of Job Factory cycle.

(2) A payment of $1.00 per hour for each hour worked during weeks three through twelve of a job. If a youth leaves one job for another during this period, the voucher payment carries over to the second job. All $1.00 payments cease twelve weeks after the close of the Job Factory cycle.

b. The Job Factory

The Job Factory treatment offered to the full-treatment group in this experiment is the same as that tested previously in Cambridge in 1979-80. We shall review the content of this treatment based on program plans as well as the actual experience from the earlier experiment. Those in Experimental Group I who participated in this Job Factory portion of the experiment received a stipend equal to the CETA Cambridge consortium-wide minimum allowance payment of $3.50 per hour.

The premise on which the Job Factory was created is the belief that for the overwhelming majority of long-term unemployed, there is an immediate place in a normal employment market. The reasons that they have not been successful in peer competition in this market place are largely superficial (i.e., not rooted in serious physical disability or social maladjustment). Rather, as a group they have been impeded in their job search by some combination of the following factors:

--Lack of knowledge of effective methods of finding a job;

--Lack of communication skills in presenting themselves as desirable workers;

--Lack of confidence, drive, realistic job goals and perhaps the personal ambition to apply to an aggressive job search

--As a result of previous failure to secure a job--discouragement and low self-esteem.

It was intended that the Job Factory create an environment in which specific positive remedies are applied to these factors. In a short four-week intensive program clients were provided with labor market education and personal selling skills. Also they followed a carefully planned and closely supervised job search. Thus, the tenet of the Job Factory, corroborated by evaluations in Cambridge as well as in other parts of the country (Azrin in Illinois, Hoffman in California) is that job seeking is a complex skill that can be learned, and job finding is a discipline which can be imposed in a structured setting.

The vital tone of the Job Factory operation is one of a practical real work environment. Relations between program staff and clients are to be conducted in a manner similar to those between management and workers in a good industrial organization. The Job Factory requires a "fair day's work for a fair day's pay." The factory provides instruction, job seeking skill training, aids, activity planning and close supervision. It demands satisfactory quality and quantity of work performance and enforces tight standards with respect to punctuality, attendance and control of work time. Minimum wage stipends are used as a reward to the work accomplished as well as a control for attendance. Absence from the program needs to be justified in order to be remunerated. Rules and tenets of the program are explained the first day of operation by the Job Factory manager:

--"Your job is to find a job."

--"We teach people how to find jobs."

--"We pay you for 40 hours a week."

--"Tell all your friends and relatives you are looking for a job."

--"Chances are you will find a job."

During the first week in the program, with the directed use of a work manual in both group and individual activities, participants develop the "tools" needed for an effective job search. These include: a skills-oriented resume or resumes; a clean, accurate, standard application form; written references from past employers; letters for solicitation of employers and for follow-up on interviews. Other important materials are provided: Industrial Directories, Yellow Pages, Newspaper want ads, street and transportation system maps and local labor market information.

Another component of the program is preparation for job interviews. Interview skills training includes a consideration of employer motivations, hiring techniques and procedures. What qualities is the employer seeking? What is his or her image of the ideal candidate for the job opening? How do you describe and project yourself in an interview, to match the image?

Following the resume-writing process, a considerable time (3-4 days) is spent in mock interviews. Participants represent their own actual backgrounds, while Factory counselors represent hiring authorities, demonstrating a variety of interviewing methods. Often the participants are asked to perform in the hiring role.

The participants are drilled as to the questions likely to be asked in an employment interview and to be ready with a positive and appropriate response.

After the first week the bulk of the participant's time is spent in actual job search activities: going out on informational interviews, using the telephone to find job prospects, making personal "cold calls" on likely employer organizations, following up on jobs which are advertised or listed with public employment services--all under close instruction.

The positive group dynamic continues throughout the program. Participants who do not have scheduled interviews or planned employer visits on their agendas return to the Factory at the end of each day to participate in group discussions about their experiences of the day. They engage in mutual critiques based on their experiences, and they serve as support group to their peers. The tone of the Job Factory, then, is peer-oriented and serious, yet fun for the participants.

3.1.1 Eligibility and Recruitment

The Cambridge prime sponsor recruited and certified 600 CETA/YETP eligible youth for enrollment in the Job Factory Voucher Programs (JFVP). To facilitate the Job Factory portion of the treatment, youth were recruited separately for each of six cycles. Each cycle attempted to serve a mixed population of eligible youth of both high school graduates and high school leavers. Some in-school youth were served in a summer cycle.

In preparation for each cycle, eligible youth were certified and randomly assigned to one of the three treatment groups. The four-week Job Search Assistance treatment, which was offered only to those in the full-treatment group, was scheduled to begin on the first day of each cycle. The cycles started on the following dates:

Cycle I	November 3, 1980-December 3, 1980
Cycle II	January 23, 1981-February 20, 1981
Cycle III	March 25, 1981-April 22, 1981
Cycle IV	June 3, 1981-July 2, 1981
Cycle V	September 18, 1981-October 16, 1981
Cycle VI	November 13, 1981-December 11, 1981

Recruitment efforts took place at the planning stages that preceded each cycle. The following means of publicity were used to promote the program:

--Letters and brochures sent to the homes of 350 young persons who had applied to various youth serving agencies over the past few months;

--Letters sent to homes of graduating seniors;

--Radio spot ads on local youth-oriented radio stations (AM & FM)--to run for two weeks;

--A saturation poster campaign covering all youth social centers, "hangouts," public housing facilities, etc.

--Irregular TV spots on a late night television program;

--Display ads in both the employment and sport sections of a local weekly newspaper;

In addition, counselors contacted program operators from social agencies serving youth in the Boston area to request referrals and enhance the pool of applicants. Residence requirements were flexible and not limited to the Cambridge area.

3.2 The Actual Operation of the Cambridge Job Factory Voucher Program

This section provides a process analysis of the experiment in Cambridge. One central purpose of a process analysis is to evaluate the feasibility of a program--whether it can be implemented and managed at all, or at least in a manner close to plan. Feasibility is not a major issue in the Cambridge program since the treatments did operate reasonably closely to what had been planned. The process analysis will concentrate on those problems that did arise in the course of the program. Did a problem cause a deviation from plan? Was a particular problem amenable to solution? By tracing the steps of the program as well as by looking at its administrative structure, we can detect problems and unexpected developments that might have arisen during the experiment. Information discussed in this section comes from interviews with staff and program administrators, from on-site observations by the Brandeis staff, and from a review of documents, procedures and clients' flow. This section is organized around four topics:

(1) Recruitment and enrollment;
(2) Participation in treatment and voucher;
(3) Participants' evaluation of program experiences;
(4) Administrative changes and personnel characteristics.

3,2,1 Recruitment and Enrollment

Since the wage subsidy experiment (voucher) is tied to JSA for one treatment group and reliant on JSA recruitment for the other two groups, recruitment and intake activities are important features of the process analysis. It has also proved to be the most difficult part of the project. As illustrated in Table 3-2 the enrollment of participants was below planned levels for all cycles. Program operators cite a number of reasons for recruitment difficulties:

(1) The eligible youth population in Cambridge was being exhausted;

(2) Social service referral agencies expressed resistance to the experiment's random selection process which could assign youth to the control group where they would receive no treatment; and

(3) Potential participants became discouraged by the lag time between program applications and random group assignment.

To discuss recruitment difficulties, several meetings were held between Brandeis and the Job Factory staff at the beginning of the second cycle. Some programmatic decisions and recommendations resulted from the exchange, and were fully adopted by the COMA staff:

(1) Recruitment would be expanded to include the Greater Boston area, thus increasing the available pool of applicants;

(2) Random selection would occur as the program applications were completed; this would enable each applicant and the referral agency to know the youth's status in the program at an earlier date.

The characteristics of youth participants presented wider variation as a result of the expansion in enrollment boundaries. There were even different interpretations of the "target groups" to be served by the program. Some counselors defined potential participants according to the parameters of the federal guidelines. Consequently, CETA-eligible youth between the ages of 16 and 22 years were considered as the target group. There was no plan to recruit specific significant segments of that youth population, although some counselors did favor such an approach. However, the composition of client characteristics did vary from cycle to cycle. For example, during the summer there was a larger proportion of recent high school graduates, whereas

Table 3-2

Cambridge Job Search Voucher Enrollments

	Cycle I	Cycle II	Cycle III	Cycle IV	Cycle V	Cycle VI	Total
1) Applications received	72	79	110	93	89	105	548
2) % Applications ineligible	10%	--	23%	37%	34%	33%	
Reasons for ineligibility as a percent of (2)							
a) Incomplete application	--	--	12%	55%	32%	88%	
b) % Ineligible, previous participant	1%	--	--	--	3%	3%	
c) % Found employment before start	30%	31%	--	9%	13%	--	
d) Above Income	--	--	--	18%	--	--	
e) Other (school, language barrier)	8%	--	6%	18%	--	9%	
3) Number assigned to full-treatment	29	35	40	25	28	38	195
a) Number of participants in Job Factory	22	28	36	21	25	29	161
% High School graduates (includes GED)	52%	44%	34%	12%	40%	45%	
% High School leavers	45%	56%	66%	9%	35%	55%	
b) Did not show on day 1 (3-3a)	7	7	4	4	6	9	37
c) Planned enrollment	50	50	50	50	50	50	300
d) Percent of Plan (3÷3c)	58%	70%	80%	50%	56%	76%	
4) Number assigned to voucher only group	17	22	24	17	16	34	130
5) Number assigned to control group	16	21	21	17	15	18	108

during the school year the group was composed primarily of those who were out of school. Also, during the course of the program the proportion of ex-offenders increased progressively. This again was not the result of any conscious administrative decision, but rather, the result of an increased response by the Boston area halfway houses to the Job Factory's recruitment efforts.

3.2.2 The Actual Operation of the Treatment

a. Job Search Assistance

For youth in the full-treatment group, the short-term goals of the Job Search Voucher program were to train participants to find their own jobs quickly and to help youth decide on the type of job that best suited their desires and qualifications. The long-term goals of the program were to provide participants with job search skills and awareness of careers that might be applied in the future. The program also provided a work atmosphere that resembled the real world of work in order to show youth the kind of discipline required on jobs. For youth in both the full treatment and voucher groups, the voucher component's role was to speed job finding and lengthen job duration. A long-standing argument among job search program operators centers around the issue of whether the program should encourage youth to find "any job" or to orient their job search efforts towards a career. Originally, the program tried to emphasize both immediate job finding and career planning. Given the short-term nature of the program , serious career planning from program participants appears an unrealistic goal. However, there was a need to provide youth with the opportunity to discuss future plans as they were preparing for their immediate job search. A key strategy that program operators used was to encourage youth to develop their own jobs. The objective was to teach youth to utilize the hidden labor market by directly contacting business establishments and making aggressive inquiries; to solicit leads from friends and relatives, and to follow up on these leads.

Lack of work experience seemed to be the most significant barrier to employment faced by the Job Factory participants. Program counselors addressed this gap in several ways. One strategy was to encourage and guide the participants to assess themselves in terms of what they liked to do and what they feel they do best. This would be followed by various drills in how to organize and present their skills in a letter of introduction, resume and interview. Another strategy was to stimulate positive thinking. Although there were participants who exhibited serious behavioral problems, counselors and other participants did not allow them to be inordinately disruptive. Through early exercises in group dynamics the group developed a cohesive capacity to handle most problems that arose. However, counselors mentioned that in each operating cycle, some participants were inappropriate for such a self-help program. The counselors voiced the strong feeling that the random selection procedure did not allow the program to screen out these inappropriate candidates. The perception of an inappropriate candidate was someone who neither needed nor expected the program to find them a job, one who was just there to collect the stipend check for four weeks (referred to as a "Program Hustler"), or one whose attendance at the program was a required condition of some other agency (i.e., probation).

Attendance at the Job Factory was monitored very closely. Monitoring was required for calculating stipend payments based on hours spent in the program. Attendance was recorded on a daily basis and a detailed log of daily activities was kept up to date by one of the counselors. When participants failed to attend, the program wages were reduced by the amount of time the participant was absent. Only two medical or personal excuses were accepted (if required documents were presented, and its verification was positive) before the wages were affected by the absence.

Table 3-3 presents the number of hours that participants spent in the program by cycle. The mean number of hours spent by youth in all cycles was 104 hours. This is a much longer participation than most job counseling pre-employment programs. (See for example the P/PV evaluation of Jobs for Youth and 70001 Ltd.)

b. The Voucher

Youth assigned to the full-treatment group heard an explanation of the rules of the voucher program the second day of the Job Factory. The voucher-only participants were sent a letter that explained the reason for non-admission to the Job Factory part of the program, but that they qualify for the voucher. A Brandeis representative met with each group of voucher only youth to discuss the conditions and regulations. Youth who did not show up at the meeting were phoned. Those not reached by phone were sent fliers explaining the voucher program. In summary, the terms of the program were explained to everyone in the full-treatment and voucher-only groups.

The program operator (COMA) and Brandeis University were responsible for administering the voucher payments to eligible youth who found jobs. Prior to the beginning of the program, the COMA staff were concerned about the cost of administering the voucher payments to eligible youth who found jobs, and the moral and legal hazards associated with it. A simple mechanism was developed at the planning stages to allow for effective verification of claims. In order to claim a subsidy, a client had to produce a paycheck stub which included:

Table 3-3

Cambridge Job Factory Participation by Cycle

	Cycle I	Cycle II	Cycle III	Cycle IV	Cycle V	Cycle VI	Total
Mean Hours	100	125	87	112	105	128	104
Number	21	25	36	21	25	20	148

(1) Individual's name and/or social security number;

(2) The number of hours worked in that pay period or the hourly wage together with gross income.

(3) Employer's name and address.

For those individuals whose paychecks did not include a pay stub with the required information, their employers had to file a form that was corroborated by program staff. To insure accurate reports and close account of the number of hours worked, a COMA staff member was assigned the task of administering and monitoring the subsidy payments. This was in addition to her responsibilities as payroll coordinator. Brandeis observed few administrative problems directly associated with the implementation of the voucher program. The time required by the COMA accounting system to process payroll checks resulted in some delays in the verification and mailing of voucher payments to program participants. As a result, it took COMA close to four weeks to make voucher payments.

To guarantee completion of the voucher eligibility period among Cycle VI participants, Brandeis continued the administration of vouchers (without COMA) after December 31, 1981. It is interesting to note that after Brandeis took over the administration of voucher payments the average time between receiving employment information from youth and mailing back a check was one and a half weeks. A total of 57 youth in the experiment group, and 43 youth in the voucher group actually claimed the voucher. In general, more youth in the voucher-only group took advantage of the voucher compared to the full-treatment group. Since voucher-only youth did not benefit from the job search part of the program and subsequently did not receive stipends, voucher-only youth may have been more motivated towards claiming vouchers once they found a job. This is explored in greater detail in the impact section of the evaluation--Chapter 4.

3.2.3 Participant's Evaluation of Program Experiences

In this section we present the evaluation of the program by youth participants themselves. The participants gave their views in the Program Completion Survey, which was administered when youth exited from the program. Table 3-4 presents the most frequently attended job search activities, as well as a rank order of the service that youth found to be most helpful. As expressed by the participants, learning how to prepare one's resume was both the most popular and attended activity offered in the Job Factory. Contacting potential employers and preparing in advance for the actual interview came next in frequency of use. However, when asked which activities were most useful, the ordering was quite different, with personal job counseling ranking second, followed by preparation for and actual interviews with potential employers. Group discussions scored somewhat lower regarding participation, as well as practical value. Individual counseling (about personal matters) and letter writing were not perceived as useful job search tools by participants. The low priority assigned to individual personal counseling (as opposed to job counseling) is consistent with the program's design. Personal counseling is not a primary feature of the Job Factory program.

When asked what they liked best, 73% of respondents reported elements of personal satisfaction, such as "finding myself," and "discovering my skills". Only 6% said they liked the program's financial incentives best. Only 25 youth responded about what they disliked in the program. Twenty-eight percent found the program boring towards the end, 48% disliked getting up in the morning and looking for a job, and the other 24% mentioned a program component or a staff member as the source of aggravation.

Table 3-4

Rank Order of Cambridge Job Factory Program Components

(by number of youth who check each category)

Program Component	Services Attended Most Frequently	Most Helpful
Resume Writing	(1)	(1)
Contacting Potential Employers	(2)	(7)
Interviews with Potential Employers	(3)	(4)
Mock Interviews	(4)	(3)
Group Review of Past - Work Experience	(5)	(6)
Personal Job Counseling	(6)	(2)
Group Discussion of "World of Work"	(7)	(5)
Personal Counseling	(8)	(8)
Letter Writing	(9)	(9)

A general question was asked about how useful the program was. Out of 120 youth who answered the question, 77% found the program very helpful, 18% reported it helped them a little, 2% denied its usefulness and the last 3% did not know how to evaluate the program. Asked about their willingness to go into another training program it is striking that nearly half the respondents (n = 114) would go only if they were paid for it. One of four would attend training regardless of financial reward, 24% felt that they are already trained for the searched job, and 4% would not bother to attend another training program. Perhaps the current stipended program created expectations among youth that financial rewards should accompany program attendance. In any event, it is noteworthy that only one of four respondents said they were willing to enter a training program that did not provide stipends.

3.2.4 The Transition in the Administration of the Cambridge Prime Sponsor: From Consortium to Central Authority

The purpose of this section is to analyze the process of operating the Job Factory Voucher Demonstration Program at the same time that the CETA agency (COMA) was undergoing an administrative change. We also present the details of how this transition affected the last two cycles of the Job Factory Program.

The Job Factory Voucher Demonstration was one of several CETA Programs run by the Cambridge office of Manpower Affairs (COMA). Overall administration of CETA funds and planning of programs was conducted via a consortium, called the Eastern Middlesex Human Resource Development Authority (EMHRDA) that served as contractor to the Department of Labor. The Job Factory and COMA occupied a suite of offices and classrooms in an office building in the center of Cambridge. The EMHRDA, also located in Cambridge was housed in a suite of offices in a building half a mile from the Job Factory/COMA location.

Shortly after the announcement was made regarding reductions in the federal CETA budget and the eventual phaseout of YEDPA, the EMRDA began to develop a plan to consolidate the operation of all programs under one centralized authority by October 1, 1981. At this time recruitment efforts for program Cycle V had just begun. All subgrantee staff were invited to compete for the limited number of jobs available in the newly created agency. The reality of this plan generated some anxiety among the COMA and Job Factory staffs. The immediate common concern among people was their job security. Many began to take time off to look for work, while some others waited out the uncertain status of their applications for positions with the new administration. The main concern for the COMA director was the future operation of the two remaining Job Factory Voucher Program cycles. Because the Project was scheduled to run until December 31, 1981 and the final two cycles were essential to the research design, Brandeis had a vested interest in the continuity of the Job Factory during the transition. The areas of joint concern for Brandeis and COMA were as follows:

- Staff--The Administrative leadership of the Job Factory Program, stability of training personnel and staff person in charge of data collection.
- Bookkeeping--Whether a counselor would verify and issue stipends and social bonus payments.
- Deadlines--Whether cycles would be run according to the schedule, how would recruiting be adequately performed.
- Location--Where would Job Factory be located after the building lease expired in October.

In early spring it was decided that the Job Factory would be placed administratively within the Job Search and Development unit, whose manager would supervise Job Search and Placement developers, OJT as well as the youth and adult Job Factories. Along with the Intake and Outreach unit and the Assessment and Counseling Unit, the Job Search and Development unit would be subsumed under the Division of Client Services, whose directors would report directly to the consortium administrator. (See organizational chart.) Job Search development would no longer be a separate entity in an array of different programs and services. The question remained as to what would be the best strategy for implementing the final three months of the Job Factory Voucher Demonstration contract within the new organizational context.

In early September the "lame duck" Job Factory manager, consortium director, and a representative from Brandeis met to resolve this very issue. The consortium director expressed confidence that the transition could be effected smoothly. At that time the three parties agreed on the following administrative details for making the transition:

- A manager of Job Search and Development was hired to begin work on October 1, 1981.
- The "lame duck" Job Factory manager would remain on a part-time consultant basis as needed to assist the new manager or staff.
- The counselors who would run JFFY cycle V were identified. One had been hired by the new agency and the other would be retained on a consultant contract until December 31, 1981.
- The new agency would assume all responsibilities for recruiting for JFFY Cycle VI by incorporating it into its own ongoing recruitment system.
- The new agency would also assume all bookkeeping responsibilities including the payment of stipends and vouchers. After December 31 Brandeis would handle the voucher payments.

- The staff assistant and intake clerk would remain on contract until December 31.
- The new agency would assume record keeping and reporting responsibilities by incorporating JFFY into its automated management information system.

There was no resolution made at this time regarding the logistics of the Job Factory. Brandeis urged an option that would (a) postpone the moving until the end of the cycle, and (b) consolidate the program and its manager under the same roof.

From October 1 to December 31 there was some confusion. JFFY cycle V began on schedule September 18 with a very small pool of eligible recruits. The recruitment effort had not been particularly successful. This may be partly explained by the low morale associated with the job insecurity and by a reduced effort on the part of referring agencies who were also closing down as the result of budget cuts.

The new manager of Job Search and Development Unit was too preoccupied with other aspects of the job to devote time and effort to the Job Factory. So it was decided almost immediately, that the now displaced COMA director would oversee the running of Job Factory. This decision turned out to be beneficial in maintaining the program's continuity.

Efforts by the Job Factory staff to coordinate recruitment, outreach and referral with the other client services were not successful; the Prime Sponsor staff did not cooperate. Thus, the Job Factory staff assumed recruitment responsibilities. Although this was a partial retrenchment of a prior agreement, it had beneficial results. The recruitment effort for cycle VI was quite aggressive and resulted in a sizable pool of eligible clients. And an additional benefit was realized in the extra space that became available after the Client Services Division moved into its quarters in the new agency. The moving of office equipment during cycle VI created a minimum of disruption to the training sessions.

To summarize: the Job Factory experienced implementation difficulties. The process analysis reveals the following:

- Enrollment of participants in the full-treatment group was down compared to last year's enrollment. Job Factory staff relied on interagency referrals as a source of applicants. Instead of developing a recruitment network that could be utilized to attract youth to the program, counselors had to promote and recruit youth a few days before each cycle was to begin.
- The Job Factory program experienced administrative changes as well as personnel turnover . The last two cycles of the Job Factory were particularly affected by these administrative changes.
- Changes in physical location of the program affected the ability of the staff to perform their training functions.

In contrast, the voucher component of the program run generally well considering that it was the first attempt to carry out such an experiment in Cambridge.

Chapter 4

The Effects of Employee Wage Subsidies in Cambridge

The purpose of the Cambridge experiment was to test the effects of job search assistance and voucher payments on the employment of disadvantaged youth. This chapter analyzes the impacts of these experimental treatments. The first section discusses why one would expect job search assistance and voucher payments to increase youth employment. The next step is to describe the methodology and measures that underlie our efforts to test whether the expected outcomes actually occurred. In the next section, we examine and interpret the employment and earnings outcomes and draw conclusions concerning the effects of experimental treatments on these outcomes.

4.1 The Expected Effects

Job search assistance and vouchers represent two distinct approaches aimed at moving disadvantaged youth into jobs. Under job search assistance, youth increase their chances to find jobs by learning about their job-related attributes, by finding out how to look for jobs, by experiencing the discipline of a job-like environment, and by looking intensively for jobs within a peer group setting. In short, disadvantaged youth find more jobs because they do better in reaching prospective employers. The voucher operates by raising the monetary incentive to work. The hourly voucher payment comes on top of the wage rate paid by employers. So, the voucher should lower the wage youths will accept from employers. That is, youth will increase the amount of labor they supply at low wage rates.

How well each of the treatments succeed should depend on the reasons disadvantaged youth have low employment levels. If youth are unemployed because they lack self-esteem, knowledge of job search techniques, and a willingness to search intensively for work, then the Job Factory should have a significant impact apart from any impact associated with voucher payments. To the extent that youth do not accept jobs because of their low pay, the voucher alone should raise employment.

To test the two approaches, the project randomly assigned disadvantaged youth into three groups. The full-treatment group qualified for the Job Factory and the voucher. The voucher-only group had access to voucher payments but not the job search program. The third group participated only as a control group. The full treatment theoretically provided youth with two special aids in finding jobs, while the voucher treatment gave youth simply an added financial reward for working.

The nature of the treatments and a review of other results suggest several potential patterns for the timing and mechanism of employment effects. A 1980-81 study of the Cambridge Job Factory indicated that participation in a job search program increased youth employment, but only temporarily. When surveyed ten weeks after the start of the program, 64 percent treatment youth had found jobs compared to only 40 percent of control group youth. However, at subsequent follow-ups, the advantage of the treatment group virtually disappeared as control group members also succeeded in finding jobs.

Expectations concerning the timing of the voucher's impact relate directly to the eligibility for payments. Youth could claim voucher payments only for hours worked over a 12 week period that began no later than 4 weeks after application. (The 12 week period could start earlier if the youth finds a job within the first 4 weeks.) Adding to the short-term incentives built into the voucher program was the higher rate ($1.50 per hour) that was available for the first 2 weeks of eligibility. The rate was only $1.00 per hour for the remaining 10 weeks.

During the initial 4 weeks after application, the full treatment group could receive $3.50 per hour and training in the Job Factory, while the voucher-only and control groups have no alternative activity. In addition, the Job Factory taught youth to show some selectivity in choosing jobs. These factors suggest that full treatment participants would be slowest in finding jobs. On the other hand, the push to search and become hired was highest for Job Factory participants while the program was under way. This should have led to faster absorption into the labor market.

Once in a job, the treatments might or might not encourage youth to remain. During the 12 weeks that youths may have claimed vouchers, we expect that youths would leave at slower than normal rates since the voucher raised the costs of losing hours of employment. In addition, participation in the Job Factory could extend job duration by helping youth achieve good job matches with employers. After 12 weeks of voucher eligibility, the voucher-only group might show lower than normal retention as jobs that were worthwhile in combination with the voucher are no longer acceptable. However, the positive impact expected from the good job matches should continue even after the first 12 weeks.

On the basis of the expectations about the experiment, we can specify the key questions, as:

--does access to hourly voucher payments raise the employment levels of disadvantaged youth?

--does the combination of a voucher and participation in the Job Factory increase the employment of disadvantaged youth?

--does participation in the Job Factory and the voucher lead to higher employment among disadvantaged youth than the voucher only?

The second set of questions deals with the timing and mechanisms by which vouchers and Job Factory participation increase employment. These are:

--do positive employment effects resulting from voucher and combined treatments fade over time or remain high indefinitely?

--do positive employment effects occur because treatment group youth are willing to accept low wage jobs, because they search intensively for jobs, or because they stay with the jobs they find?

--how do the combined and voucher-only treatments affect the jobs youth accept?

--to what extent do youth who qualify for vouchers actually claim the vouchers?

--how does the pattern of limited taking up of voucher benefits influence our judgement about the voucher's impact on employment and wage rates?

4.2 The Data and Methodology

Data on the employment, earnings, and voucher payments of participants come from intake questionnaires, surveys of participants, and program records of voucher payments. The intake questionnaire (the Individual Participant Profile) collected baseline data on the characteristics of participants. The initial follow-up surveys took place 4 weeks after the start of each Job Factory cycle, for members of the voucher-only and control groups. The Job Factory staff obtained comparable data from members of the full treatment group at the time they exited from the Job Factory program. Brandeis interviewers undertook the second and third follow-up surveys at

12 and 20 weeks after the start of each Job Factory cycle. Table 4-1 summarizes the timing and the responses to each survey.

The questions of primary interest concerned the employment of participants. At each follow-up, the interview data contain information on whether the participant worked and if so, on the characteristics of the job. Responses to the employment questions show 1) whether the person had worked at all since the preceding follow-up (or since enrollment in the case of the first follow-up); and 2) what the person's principal activity was during the period since the last follow-up. Those who did find work reported their wage rate, weekly hours, weekly earnings, and whether the work was full-time or part-time. All respondents also reported their reservations wages and their job search methods and intensity.

The simplest way to answer the questions is to compare the mean value of the employment and earnings outcome measures across the three experimental groups and to perform significance tests to determine which differences are statistically significant. These simple results are good indicators of actual impacts because of the genuinely random nature of the assignment process. However, the random assignment to experimental groups does not guarantee against systematic differences between groups nor against variations in response rates. To control for these differences and to capture nonexperimental effects, we estimate equations of the following form:

$$E = f(T, X) + e \quad ,$$

where E is the value of employment variable i for individual j, T is a vector of experimental treatment measures, X is a vector of individual characteristics, and e is the error term for individual j. The nature of the depend-

Table 4.1

Schedule and Responses on Surveys

	Timing (Weeks Following Enrollment)	Number of Responses			
		Full Treatment	Voucher Only	Control	Total
IPP	Enrollment	159	130	98	387
PCS[a]	Exit from Job Factory	128	--	--	128
First Followup[b]	4	--	74	79	153
Second Followup	12	108	69	65	242
Third Followup	20	128	23	61	272

[a] Program Completion Survey applies to full-treatment group only.

[b] First followup applies to voucher-only and control groups.

ent variable determines whether we use least squares or logit to estimate the equation.

4.3 The Basic Employment Results

The first step is to determine the impact of voucher-only and full-treatments on employment levels of disadvantaged youth. Since the primary purpose of the treatments was to move youth into jobs, we rely largely on whether the participant worked at any job since the preceding follow-up.

Table 4.2 presents the percentages of each treatment group that worked as of the three follow-up periods and over the entire follow-up period. These numbers show that rates of working were lowest for the control group during each of the post-program periods. At the first follow-up, the difference between the control and the full treatment group were large, while only a small difference appeared between the voucher-only and the control group. By the second follow-up, both the full and voucher-only groups had substantially higher employment than the control group. The erosion of the full treatment impact and the strengthening of the voucher-only impact continued through to the third follow-up.

These results constitute evidence that the treatments did indeed increase youth employment. However, to see whether the effects hold up when controlling for nonexperimental variables, we developed a multivariate analysis of employment impacts. Given our use of dummy dependent variable equalling 1 if the person worked and 0 if not, we estimated logit equations at each follow-up. The two treatment variables were dummies reflecting membership in the voucher or full treatment groups. VOUCHER equalled 1 for individuals eligible for vouchers and 0 for all others. FULL equalled 1 for individuals eligible for vouchers and the Job Factory and 0 for

Table 4.2

Youth Who Had Worked between Followups

(Expressed as percentages with sample sizes given in parentheses)

	Full-Treatment Group	Voucher-Only Group	Control Group
1st follow-up[a]	56.8[b] (125)	39.4 (71)	34.3 (67)
2nd follow-up	61.5 (96)	59.3 (59)	44.6 (56)
3rd follow-up	57.7 (104)	70.0 (70)	51.2 (43)
Ever Found a Job[c]	74.1 (162)	70.4 (98)	56.5 (85)

[a] First follow-up asked youth whether they had worked since program enrollment.

[b] Youth in Job Factory were interviewed at program exit and were asked if they were working at that time.

[c] Calculated as those who had had a job at any follow-up as a percent of all those who had a response on at least one follow-up.

everyone else. This specification of treatments allows a test of the difference between effects of the Job Factory plus voucher treatment and the voucher-only treatment. Moreover, if the voucher had the same effect on the two groups, the effect of FULL could be decomposed into the voucher component and the job factory component. Whether the voucher does exert identical impacts on both experimental groups is an empirical issue that we address when examining the results.

The logit equation results appear in Table 4.3. Other than the treatment variables, the only significant variables were FEMALE in the first follow-up and HSGRAD in the second follow-up. Since the control variables are mostly insignificant, estimates of treatment effects should look similar whether they are based on a simple comparison of means or on the logit analysis. To facilitate the examination of treatment effects, we present predictions based on the two types of estimates in Table 4.4. The numbers show the difference in the probability of working attributable to 1) eligibility for the voucher; and 2) the excess of full treatment over the voucher-only treatment. Both the mean and t value appear in the Table. The estimates derived from the logit equations are prediction for individuals whose non-treatment variables are zero.

The results form an interesting pattern. The full treatment over the voucher effect was positive and significant at the first follow-up. This indicates that the only positive treatment effect came from participation in the Job Factory. At the second and third follow-up, the voucher-only exerts a positive and usually significant impact on employment. However, participation in the job factory exerted no additional effect above what the voucher-only yields. In fact, including job factory participation on top of

Table 4.3

Logit Analyses of Whether the Person Had Worked

Variable	1st Follow-up Data	2nd Follow-up Data	3rd Follow-up Data
VOUCHER	.1433	.7178*	.9095*
	(.3695)	(.4026)	(.4174)
FULL	.5946*	.0554	-.7377*
	(.3250)	(.3613)	(.3485)
ETHNIC	-.2466	-.5001	-.4425
	(.2792)	(.3065)	(.3082)
HSGRAD	-.0370	-1.1190*	-.4497
	(.4013)	(.5015)	(.4706)
DROPOUT	-.1037	-.8893	-.3895
	(.3753)	(.4600)	(.4448)
FEMALE	-.5812*	-.0394	-.2409
	(.2804)	(.3080)	(.2993)
HEAD	-.4537	-.5018	.1320
	(.2993)	(.3432)	(.3223)
PUBASSIST	-.0752	-.1585	.3200
	(.2809)	(.3217)	(.3083)
CONSTANT	-.0133	.9135	.3774
	(.4389)	(.5312)	(.5242)
N	237	192	197
X^2 (9d.f.)	15.26*	14.56*	10.81*

Notes:

1. Newton-Raphson estimating algorithm used.
2. * indicates significance at 5 percent level based on one-tail test for VOUCHER, FULL, and X^2; two-tail test for other variables.
3. X^2 variable is -2* Log Likelihood Ratio; used to test against hypothesis that all unrestricted slopes in model are zero.
4. All variables are dummy variables which equal 1 in indicated case, 0 otherwise.
   Dependent variable: if had worked since preceding follow-up.
   VOUCHER: if in full-treatment or voucher-only groups.
   FULL: if in full-treatment group.
   ETHNIC: if Black or Hispanic.
   HSGRAD: if graduated high school.
   DROPOUT: if dropped out of school.
   FEMALE: if female.
   HEAD: if head of household or non-dependent.
   PUBASSIST: if public assistance recipient.

Table 4.4

Predicted Effect on Probability of Working from Experimental Treatments

Treatment Component	Method of Calculation	1st Follow-up	2nd Follow-up	3rd Follow-up
Voucher Eligibility				
	1. Difference in Means (Voucher only Group minus control group)	.051 (.621)	.147 (1.60)	.188* (2.045)
	2. Logit Prediction	.035 (.6388)	.123* (1.783)	.190* (2.179)
Excess of Full Treatment over Voucher-Only (JSA)	1. Difference in means (Full-Treatment Group minus Voucher-Only Group)	.174* (2.375)	.022 (.272)	-.123 (1.52)
	2. Logit Prediction	.142* (1.830)	.008 (.153)	-.150* (-2.117)
Actual mean for control group		.343	.446	.512

Notes:

1. t ratios for testing whether the differences are significantly greater than zero are presented in parentheses beneath the predicted effects.
    a. For the differences in means, t ratios are used, based on the result that the normal distribution approximates the binomial in large samples. The t ratio calculations assume that the true variances are identical for the two groups tested.
    b. t ratios for the logit predictions are the t ratios for the VOUCHER and FULL variables respectively.
    c. * indicates significance at the 5 percent level based on a one-tail test.

2. Logit predictions are based on the relationship $P = \dfrac{c^{\beta' x}}{1+c^{\beta' x}}$

    where P is the probability of working, x the vector of independent variables, and β the vector of coefficients.

    a. The prediction for voucher eligibility is calculated as the change in P resulting from a change in VOUCHER from 0 to 1 for an individual whose non-treatment variables all equal 0.
    b. The prediction for full-treatment excess effect is calculated as the change in P resulting from a change in FULL from 0 to 1 for an individual whose non-treatment variables all equal 0 and for whom VOUCHER = 1.

3. Actual means are taken from column 3 of Table 4.2.

vouchers apparently reduced youth employment by the time of the third follow-up.

Note at the bottom of Table 4.4 that employment among control group members rose steadily over the post-program period. Thus, the increasing advantage of voucher group members over the control group came on top of a normal gain in job finding. Similarly, the drop in the advantage of the full treatment group over the voucher group occurred in the context of very large increases in voucher group employment. The share of voucher group members who worked jumped from about 40 to 70 percent between the first and third follow-up. For the full treatment group to keep pace would have required their employed share to reach nearly 90 percent.

To summarize the basic findings:

1) a voucher paid to workers consistently raised employment of disadvantaged youth;
2) the voucher impacts rose over time through 5 months after the start of the program;
3) the combined Job Factory plus voucher treatment produced employment gains in the initial period after program start-up; but
4) the combined treatment did no better and sometimes worse than the voucher alone in later periods.

4.4 Employment Effects: Timing and Mechanisms

4.4.1 Implications of Differences in Claiming Voucher Payments

The basic employment effects constitute evidence that job factory programs and voucher payments can raise employment of disadvantaged youth. But, we can enhance our understanding of the impact of these treatments by examining the results on the timing and mechanisms by which vouchers and job search assistance produce employment gains.

The timing patterns noted above showed a small initial, but gradually increasing impact from vouchers and a large initial, and fading impact from adding Job Factory participation to the voucher. An odd feature of the results in Table 4.4 is that, as of the third and final follow-up, youth who had access both to vouchers and the Job Factory actually had significantly lower employment than did youth with access to the voucher only. Although one natural explanation is that the full treatment group had weaker job characteristics than the voucher group, evidence against this explanation is the logit results that control for job characteristics.

A second explanation is that the voucher does not exert the same impact on the full treatment group as it does on the voucher-only group. It would be understandable that youth in the full treatment group view the voucher as a marginal part of their treatment, since the Job Factory element was an intense intervention that provided large stipends. In contrast, the voucher-only group was likely to pay more attention to vouchers since access to the subsidies was the group's only treatment.

Evidence for this second explanation comes from data on the share of treatment group youth that claimed voucher payments. Of course, only those youth able to find jobs within a 16 week period from the startup of the program qualified for vouchers. But some youth did not bother to claim benefits available to them. The numbers in Table 4.5 are consistent with the idea that the voucher's impact was smaller on the full treatment group than on the voucher-only group. The rate at which employed members of the voucher-only group claimed vouchers was generally much higher than the take-up rate of employed members of the full treatment group. Overall, the fact that many youth did not claim voucher payments even after finding

Table 4.5

Voucher Use and Employment

	Full Treatment Group	Voucher Only Group
First Follow-up		
1. Percent who had job at 1st follow-up	56.8[b]	39.4
2. Percent who had job on 1st follow-up and claimed voucher (vouchered[a])	45.1	78.6
Second Follow-up		
1. Percent who had job at 2nd follow-up	61.5	59.3
2. Percent who had job at 2nd follow-up and claimed voucher (vouchered[a])	37.3	62.9
Third Follow-up		
1. Percent who had job at 3rd follow-up	57.7	70.0
2. Percent who had job at 3rd follow-up and claimed voucher (vouchered[a])	46.7	51.0

[a] Vouchered is used here to mean a person who ever claimed a voucher payment. An individual thus will be either vouchered on every follow-up or never vouchered. The percent of the sample which is vouchered can vary from one follow-up to another because the sample of individuals responding differs.

[b] Program Completion Survey for full-treatment participants.

a job is somewhat surprising. On the other hand, nonparticipation does occur in most income transfer programs, and the participation rate among voucher eligibles is not especially low in this context.

The low rate at which the full treatment group claimed voucher payments suggests that the impact of the voucher treatment was less significant for those who participated in the Job Factory. Thus, in decomposing the Job Factory and voucher effects on the full treatment group, we cannot assume that the voucher component exerted as large an impact as it did on those in the voucher-only group. This, in turn, means that the net contribution of the Job Factory was more positive than implied by the figures on the bottom of Table 4.4. The most likely explanation is that the Job Factory's net impact was slightly positive in the second follow-up, but eroded to zero by the third.

4.4.2 Job Search, Job Acceptance, and Job Retention

The voucher and Job Factory treatments could raise youth employment levels in one of three ways:

--by causing youth to search intensively for jobs;

--by influencing youth to accept jobs that would have been rejected in the absence of a treatment; and

--by encouraging youth to stay longer on the job.

In the case of job search intensity, we would expect both the voucher-only and the full treatments to stimulate youth to increase their time and effort directed toward finding a job. Table 4.6 allows us to examine whether differences did emerge in the search activities of the three experimental groups. Surprisingly, the numbers show no systematic differences in the intensity with which young people look for jobs.

Table 4-6

Intensity of Search Among Cambridge Employed Youth at Each Follow-up by Group

	1st Follow-up			2nd Follow-up			3rd Follow-up		
	Full Treatment	Voucher Only	Control Group	Full Treatment	Voucher Only	Control Group	Full Treatment	Voucher Only	Control Group
1. Found a job									
Average number of applications filled	4.6 (48)	5.1 (24)	4.0 (12)	6.0 (28)	6.5 (21)	4.6 (13)	7.2 (29)	7.6 (33)	9.2 (14)
Average number of interviews	5.5 (50)	3.1 (20)	2.8 (8)	2.7 (24)	3.8 (6)	4.5 (14)	4.6 (24)	2.7 (27)	4.2 (12)
2. Unemployed but searching									
Average number of applications filled	--	9.5 (36)	9.6 (39)	8.8 (36)	9.1 (26)	10.4 (23)	6.3 (35)	8.0 (16)	9.8 (13)
Average number of interviews	--	2.1 (6)	1.6 (11)	1.0 (4)	1.0 (1)	3.0 (5)	4.8 (7)	1.0 (2)	-- --

A second possibility is that the access to voucher payments influence youth to lower their reservation wage (the lowest wage that will induce a worker to accept a job). Our expectations were that the exposure to the voucher-only treatment would reduce reservation wages. However, the Job Factory component of the full treatment would either have no effect or would encourage youth to raise their self-esteem, their confidence in finding a job, and thus their wage expectations.

Since the wage rate does not capture all aspects of the job's desirability, the analysis of potential effects on reservation wages must take account of accompanying effects on what overall job characteristics are acceptable. Tables 4.7, 4.8, and 4.9 present information on how wage and job characteristics were affected by the two treatments.

A comparison of the mean wage rates provides evidence that access to vouchers lowers reservation wages. At all three follow-up periods, the mean wage rate of members of the voucher-only group was well below that of the control group. As expected, the full treatment exerted less of an impact or no impact on reservation wages, partly because inclusion of a Job Factory treatment tended to raise wage expectations and tended to lessen the importance youth placed on the vouchers.

To examine wage impacts in a way that controlled for nonexperimental variables, we regressed wage rates against the two treatments and a set of control variables. The results in Table 4.8 confirm the findings that 1) the voucher exerts a negative impact on wages; and 2) the combined voucher-job factory treatment raised wage rates in comparison to the voucher-only treatment, but had essentially no effect relative to no treatment.

It is possible that the low wages acceptable to voucher-only youth do not represent an increased willingness to take jobs, but simply the result of

Table 4.7

Mean Wage Rates

	Full-Treatment Group			Voucher-Only Group			Control Group
	Vouchered	Never Vouchered	Overall	Vouchered	Never Vouchered	Overall	
First Follow-up	3.70 (27)	4.05 (35)	3.90 (62)	3.64 (21)	3.66 (4)	3.65 (25)	3.81 (19)
Second Follow-up	3.84 (17)	3.95 (22)	3.90 (39)	3.41 (18)	3.41 (9)	3.41 (27)	4.07 (19)
Third Follow-up	4.22 (25)	4.10 (24)	4.16 (49)	3.56 (22)	3.80 (18)	3.67 (40)	4.40 (17)

Table 4-8

Regression Analysis of Wage Rates

Data Source	First Follow-up	Second Follow-up	Third Follow-up
VOUCHER	-.1183	-.4620	-.7830*
	(.2732)	(.3121)	(.3380)
FULL	.1997	.5570*	.5150^{+}
	(.2181)	(.2715)	(.2686)
ETHNIC	-.1812	-.1103	.1912
	(.1885)	(.2486)	(.2623)
HSGRAD	.0848	.2063	.2136
	(.2571)	(.3397)	(.3527)
DROPOUT	-.0600	-.0466	.2673
	(.2451)	(.3050)	(.3198)
FEMALE	-.1570	.0946	-.5524*
	(.1959)	(.2376)	(.2500)
HEAD	.0488	-.0371	.1478
	(.2064)	(.2733)	(.2605)
PUBASSIST	-.0320	-.4914	-.2750
	(.1916)	(.2399)	(.2464
Constant	3.7927	3.5882	3.6748
R^2	.0387	.1439	.1395
F	.41	1.32	1.62
N	90	72	89

Sample restricted to those who found jobs.

* indicates significance at 5 percent level.

+ indicates significance at 5 percent level using a one-tail test (hypothesis: FULL has higher wage).

trading off higher wages for better nonwage job characteristics. However, when we examine Tables 4.9 and 4.10, we find no evidence that youth from the voucher-only group were able to find jobs in higher level occupations or jobs offering longer hours. Indeed, voucher-only youth tended to take jobs providing slightly lower hours than the jobs of youth from control or full treatment groups. However, since those in the voucher-only group that claimed payments had no lower hours than did other groups, the lower hours for the voucher-only group as a whole was not apparently caused by the voucher treatment.

A final way that treatments can affect employment is to encourage youth to remain on jobs. In general, we would expect the voucher-only and the full treatments to lengthen job tenure. The voucher offers a temporary subsidy to hours of work, and thus raises the financial loss from hours of not working during the period that the voucher is available. Although a permanent voucher would also exert an income effect that might tend to lessen tenure, the voucher in this experiment was a temporary one and thus should have a relatively weaker income and stronger substitution effect. The full treatment should also increase tenure since the Job Factory should contribute to helping youth match themselves with appropriate jobs.

The numbers in Table 4.11 provide some indication that the voucher extends job duration. Of those who had worked as of the first follow-up, 94 percent of voucher-only youth but only 82 percent of control youth were still working at the second follow-up. However, job retention between the first and second follow-ups was lower for full treatment youth than for control group youth. The role of the voucher looks more important when examining retention from the first through the third follow-up. Here, the full

Table 4-9

Distribution of Job Finders Among Occupational Categories as of First Follow-up in Cambridge

	Full Treatment Group	Voucher-Only Group	Control Group
1. Laborers and low level service workers	29.4	30.8	33.3
2. Service workers, lower level crafts and operations	26.5	23.1	23.8
3. Clerical, crafts, and kindred	44.1	46.2	42.9
4. Higher status	--	--	--
Sample size	62	26	21

Table 4-10

Characteristics of Work Experiences Among Those Who Did Find Jobs

	Full-Treatment Group			Voucher-Only Group			Control Group
	Vouchered	Never Vouchered	Overall	Vouchered	Never Vouchered	Overall	
Percent Full-Time							
1st Follow-up	85.7 (28)	76.5 (34)	80.6 (62)	81.0 (21)	60.0 (5)	76.9 (26)	78.9 (19)
2nd Follow-up	82.4 (17)	59.1 (22)	69.2 (39)	82.4 (18)	33.3 (9)	63.0 (27)	84.2 (19)
3rd Follow-up	68.0 (25)	72.0 (25)	70.0 (50)	81.8 (22)	72.2 (18)	77.5 (40)	88.2 (17)
Mean Weekly Hours							
1st Follow-up	37.1 (28)	34.8 (34)	35.8 (62)	35.2 (21)	32.4 (5)	34.7 (26)	35.4 (19)
2nd Follow-up	37.5 (17)	33.0 (22)	35.0 (39)	37.1 (18)	24.4 (9)	32.9 (27)	37.2 (19)
3rd Follow-up	32.6 (25)	33.0 (25)	32.8 (50)	37.6 (22)	33.6 (18)	35.8 (40)	37.2 (17)
Weekly Earnings							
1st Follow-up	131.06 (23)	136.59 (29)	134.15 (52)	129.61 (21)	123.50 (4)	128.63 (25)	135.97 (19)
2nd Follow-up	145.14 (17)	138.00 (22)	141.11 (39)	128.78 (18)	88.16 (9)	115.24 (27)	152.17 (19)
3rd Follow-up	139.97 (25)	146.56 (24)	143.20 (49)	133.65 (22)	127.91 (18)	131.07 (40)	153.63 (16)

Sample size indicated in parentheses beneath each mean.

Table 4.11

Job Retention

	Full-Treatment Group	Voucher-Only Group	Control Group
1. Had found job before first follow-up			
a. Percent who had job by second follow-up	70	94	82
b. Percent who had job job by third follow-up	52	75	55
c. Percent who had job between first and second follow-up	66	81	84

Base for (a) percentage omits cases with missing data on second follow-up; for (b) percentages cases with missing data in third follow-up omitted.

treatment group shows higher retention than controls and the advantage of the voucher-only group over controls widens.

The only detailed data on hours on the job comes from the program records on voucher payments. For the subgroups claiming vouchers, we can determine their total hours by dividing total payments by the hourly voucher rate. Table 4.12 shows that the total reimbursements of voucher-only and full treatments claimants were about the same for the initial two-week component, but that payments were considerably lower for the voucher only group over final 10 week component. If we consider hours reimbursed relative to a typical 37.5 hour week, it is clear that youth took much more complete advantage of the initial, $1.50 subsidy than of the later $1.00 subsidy. Once in a job, youth claiming vouchers worked only about half the potential hours (over the last 19 weeks) for which vouchers were available.

The findings concerning the timing and mechanisms of treatment effects do have limitations not emphasized in the above presentation. The attrition and nonresponses make samples sizes vary. The patterns are often not entirely consistent with a particular explanation. And the differences among groups that do fit our expectations are frequently not statistically significant.

Nevertheless, we can draw some conclusions about which mechanisms did and did not influence outcomes. First, the positive employment effects did not seem to result from more intensive job search assistance. Second, the reduction in reservation wages may well have contributed to the voucher's impact on employment, but no such mechanism explained the initial positive effects from the full treatment. Third, the voucher-only and full treatments appear to have caused only slight increases in job tenure.

Table 4.12

Mean Voucher Payments Per Youth

	Full Treatment Group	Voucher-Only Group
Mean payments at $1.50 rate	$ 82.46 (39)	$ 83.94 (32)
Mean payments at $1.00 rate	189.10 (49)	166.56 (41)
Total payments per youth	244.74 (51)	226.55 (42)
Mean payments as percentage of maximum possible payments at $1.50 rate[a]	73.3	74.6
Mean payments as percentage of maximum possible payments at $1.00 rate[a]	50.4	44.5

[a] The maximum possible payment assumes a 37.5 hour week.

4.5 Employment Effects in Relation to Costs

The desirability of a program depends on its costs as well as on its effects on employment and earnings. To compare the effects estimated above with the costs, we must develop measures of costs associated with each treatment, net of special research and demonstration costs. To do so, we draw on itemized cost data provided by the Cambridge program operators. These actual cost figures appear in Table 4.13.

The first step is to subtract costs associated with the research effort. Since program counselors had to interact with Brandeis researchers in several instances, we allocated 5 percent of counselors' time to research activities. Operators also had to incur some recruitment costs to attract enough applicants for controls as well as participants. Recruitment costs consisted of advertising and an incentive payment of $2.00 to some youths who completed applications. This incentive fee was paid on a very irregular basis. After dividing recruitment costs in proportion to the fraction of youth enrolled in each group, we deducted that portion of costs attributable to the control group as a research expense.

Decomposing program costs into Job Factory and voucher components is the next step. Nearly all operational outlays paid for staff and resources went toward operating the Job Factory. In addition, all stipends paid for attendance at the Job Factory. The total costs of the voucher-only treatment were the voucher payments to the voucher-only group, the costs of recruiting voucher youth, and the costs of administering the voucher payments to the voucher-only group. Counselors assisted in preparing voucher claims, spending no more than half a day each week. A COMA accountant devoted one morning a week to verification of voucher claims; a payment clerk had to prepare the

Table 4-13
Treatment Costs

			Allocation to:	
	Actual Costs	Research and Demonstration Costs	Full-Treatment Group	Voucher-Only Group
COMA Expenses				
Personnel: Counselors and Fringe Benefits	$112,472	$5,624[b]	$106,049	$799[c]
Staff Training	12,000		12,000	
Rent	15,000		15,000	
Telephone	5,500		5,500	
Printing/Xerox	3,846		3,846	
Video	1,705		1,705	
Supplies	3,500		3,500	
Furniture/Equipment	2,702		2,702	
General & Administrative	20,074		18,876	$1,198[c]
Total	176,799	5,624	169,178	1,997
Incentive Payments				
Recruitment & Incentives	12,375	2,980[d]	5,940[d]	3,465[d]
Stipends (for Job Factory Attendance)	62,479		62,479	
Voucher Bonuses	20,972		11,954	9,018[c]
Total	$272,625	$8,604	$249,551	$14,480

Notes:

[a] COMA presented a budget for both the earlier and the current demonstration combined, running from May 1979 to Dec. 1981. We subtracted the budget items presented after the earlier demonstration to obtain the figures in the first column.

[b] Counselors are assumed to spend 5 percent of their time on research efforts so we allocate 5% of the personnel budget to research and demonstration costs.

[c] To estimate the cost of administering the voucher payments, we assume the following:

1) Counselors spend altogether 4 hours per week for 69 weeks. Assuming an annual salary including fringes of $14,000, or $6.73 per hour, counselor costs amount to $1,857.

2) The accountant with a $15,000 annual salary spends 4 hours per week for 69 weeks amounting to a cost of $1,990. The payment clerk, earning $12,000 per year, spends 2 hours per week for 69 weeks costing $795. These two items total $2,785 and are assumed to be part of general and administrative expenses.

(Notes to Table 4-13 Continued)

3) We divide these costs and voucher bonus payments between the full-treatment and voucher-only groups in proportion to the number of voucher claimants in each group: 57 percent are in the full-treatment group and 43 percent in the voucher-only group. This gives the following breakdown of voucher costs:

	Total	Full-Treatment	Voucher-Only
Personnel	$ 1,857	$ 1,058	$ 799
General and Administrative	2,785	1,587	1,198
Voucher Bonuses	20,972	11,954	9,018
Total Voucher Costs	25,614	14,599	11,015

For the full treatment group these cost items are lumped together with other costs on each budget line.

[d] Recruitment and Incentive costs were allocated between all three groups in proportion to the numbers of youth actually assigned to each group: 48 percent in the full-treatment group, 28 percent in the voucher-only group, and 24 percent in the control group. Since the control group was included strictly for research purposes, we include the recruitment costs allocated to it as part of research and demonstration expenses.

checks, spending an average of 2 hours per week. After estimating these costs of processing vouchers, we allocate them in proportion to the numbers actually claiming vouchers in two treatment groups (43 percent of claimants in the voucher-only and 57 percent in the full treatment groups). To allocate the voucher payments, we used the same breakdowns.

How we allocate additional overhead expenses depends on whether we view the voucher as an add-on activity or a full, separate program. Were the voucher program only an add-on activity, its added costs for rent, supplies, and furniture would be minimal. However, it is not clear that the voucher program would always be a small component of an existing activity. In this case, some additional overhead should be attributed to the voucher-only treatment.

We assigned additional overhead costs of relevant items to the voucher-only program in the same proportions as the general and administrative costs. Although this makes the voucher program look more costly than it would be as an add-on activity, the voucher-only treatment remains much less expensive than the full treatment.

Having derived the costs of each treatment, we consider these costs in relation to the number of participants, to the number of participants who became employed, and to the number of participants whose employment was associated with the treatment. Note on line 3 in Table 4.14 that the unit costs of the voucher program were far less than those of the full treatment. This is because the full treatment includes not only the same voucher costs items as the voucher-only treatment, but also the high costs of running the Job Factory. Part of the reason for the low voucher-only costs is that many eligible youth (even some who found jobs) did not claim vouchers and those who did claimed

Table 4-14

Unit Costs

	Full-Treatment Group	Voucher-Only Group	Job Factory Treatment (1981 Study)
1. Total Cost	$249,551	$14,480	$197,827
2. Number of Partipants	161	130	200
3. Cost per Enrollee (1 ÷ 2)	$ 1,550	$ 111	$ 989
First Follow-up Comparisons			
4. Proportion of enrollees finding a job by 1st follow-up	.57	.39	.64
5. Cost per job finder by 1st follow-up (3 ÷ 4)	$ 2,719	$ 286	$ 1,545
6. Net proportion of job finders above control group rate	.23	.05	.16
7. Cost per net job finder by 1st follow-up (3 ÷ 6)	$ 6,739	$ 2,220	$ 6,181
Ever Found Job Comparisons			
8. Proportion of enrollees who ever found job	.74	.70	.79
9. Cost per job finder (3 ÷ 8)	$ 2,094	$ 159	$ 1,251
10. Net proportion of ever job finders above control group rate	.18	.14	[a]
11. Cost per net job finder	$ 8,611	$ 793	$ --

[a] The proportion for the control group was slightly higher than for the job factory group.

far less than the maximum possible amount. On the other hand, those who were assigned to the Job Factory did generally participate and take the stipends to which they were entitled.

Still another reason for the high unit costs of the Job Factory component was the relatively low participation. In a job search program, fixed costs tend to be high and recruitment is difficult. So, running a Job Factory that is not operating at capacity is common and expensive. In comparison to the Cambridge Job Factory's operations in the prior year, the year of this experiment had more cycles (6 instead of 5) yet fewer total participants (161 instead of 200). So, while total costs between one year and another rose about 15 percent, the low utilization of capacity raised unit costs by nearly 50 percent.

In principle, the high unit costs of running a Job Factory could be worthwhile were the program to show enormous impacts on employment and earnings. In fact, the full treatment demonstrated no general advantage over the voucher-only treatment in generating increased employment among disadvantaged youth. Even when employment gains for the full treatment group did exceed the gains associated with the voucher-only treatment, the only part of the far higher costs are offset by the differential effects. Table 4.14 provides the data for these comparisons.

The cost per additional job under the full treatment alternative was not far from the comparable figure derived in an earlier study of the pure effect of the Job Factory. At a cost of between $6000-$8000, the Job Factory is apparently able to increase by 1 the number of disadvantaged youth who find jobs over a 5 month period.

On the basis of this experiment, the voucher-only treatment is able to add to the disadvantaged youth finding jobs at a much lower cost. The results suggest that for the net costs of using the voucher-only approach lie between $800 and $2000.

These figures alone do not provide conclusive evidence for the superiority of the voucher-only as compared to the Job Factory or the full treatment. For one thing, the Job Factory may teach youths about themselves and about job search strategies in a way that helps participants over a long period. Such long-term benefits would carry weight in any decision about choosing between one or the other alternative. However, the evidence from this experiment does not suggest any positive long-term benefits. Indeed, the benefits that are associated with the full treatment erode by 20 weeks after the Job Factory began.

Chapter 5

The Effects of Employer Wage Subsidies in Wilkes-Barre

5.1 Design of the Experiment

The Wilkes-Barre (Pennsylvania) Job Search Voucher Project (JSVP) operated under the auspices of the Youth Employment Service (YES), a non-profit community based organization that has provided counseling and job placement assistance to youth in the Wilkes-Barre area for several years. The voucher experiment offered special wage vouchers to a randomly selected group of employers if they hired youth from the YES program. YES was thus used to administer the payment of vouchers to employers as well as to prepare the youth who, if hired, would make the employers eligible for the voucher. This demonstration expanded from a Job Search Demonstration Project for low income youth. Over the FY 1981 period, YES was required to recruit 500 low income youth, ages 16-21, into a job search program which was part of this demonstration.

Although we were interested in the response of employers to vouchers, we had to take account of the fact that the voucher experiment co-existed with TJTC, a national program subsidizing the hiring of all low income 18-24 year olds. To isolate the effects of TJTC and voucher subsidies, we developed 2 kinds of treatments. One was simply a direct marketing of TJTC for 18-24 year olds. The second added access to vouchers along with direct marketing of TJTC. Firms hiring 16-17 year olds would be eligible for the vouchers.

The design yields a three-way division of employers. Brandeis randomly assigned employers to one of three categories: 1) A TJTC promotion group which was urged to use TJTC; 2) a voucher group which was urged to use TJTC and was eligible for voucher payments if 16-17 year olds were hired; and 3) A 2- treatment control group. The treatments directed at employers are summarized in Table 5.1.

5.1.1 The Treatments Directed at Employers and Random Assignment

The size of the voucher payment for eligible firms hiring low income 16-17 year olds was:

(1) $1.80 per hour during the first three months the youth worked for the firm; and

(2) $1.00 per hour for the next five months the youth worked for the firm.

A maximum hours' limitation of 40 hours per week and a minimum wage of the Federal minimum wage applied to all voucher recipients. YES, which administered the experiment, was interested in stimulating employment of youth in general, but it was particularly interested in encouraging firms to hire participants in its job search Workshop. YES job developers contacted employers in Wilkes-Barre in order to stimulate job orders for their participants. It also promoted the use of TJTC for 18-24 year olds during the contacts with employers. The use of TJTC, of course could not be restricted to YES participants. Voucher payments (to eligible firms) would also apply to youth who did not go through the YES Workshop.

In order to facilitate the research effort, YES made available a list of employers to researchers specifying the size, class, industry, and location of each employer.

Three criteria were used for stratifying employers: Youth intensity, size and location. Based on national statistics, industries were divided into three groups: high, medium and low, regarding number of youth employed. For example, clerical, sales and service industries are high intensive; processing, fabrication, construction, machinery and tooling are medium; and professional, technical, and managerial are included in the low category. Local employers were then assigned a youth intensity rating based on their industry. Size was the second factor considered. Firms employing 100 workers and more were defined as large; between 50-99 workers, medium; and between 1-49 workers, small. The third consideration was whether employers were located in or outside of Wilkes-Barre. Subsequently, researchers randomly assigned employers to treatment and control groups using the YES-provided list of employers and a list from the Pennsylvania Industrial Directory, 1980. As of May 1981, 375 employers were assigned to the treatment and control groups as follows:

Treatment Group #1: Voucher and TJTC	125
Treatment Group #2: TJTC	125
Control	125

The YES-JSV project was intended to provide a test of three primary hypotheses:

(1) Providing employers with a direct subsidy to wage costs of employing low income 16-17 year olds would stimulate the firms' demands for low income 16-17 year olds;

(2) Subsidizing 16-17 year olds would adversely affect the hiring of 18+ year olds.

(3) Firms contacted directly to promote TJTC would make greater use of TJTC and hire more 18+ year olds than firms not contacted, possibly enough to overcome any adverse effect in (2).

Table 5.1

Summary of Experimental Variations in Wilkes-Barre

Actions	Voucher Group	TJTC Promotion Group	Control Group
YES Job Developer meets with firm:			
to request vacancies	Yes	Yes	No
to encourage hiring of low income 18-24 year olds and use of TJTC	Yes	Yes	No
to offer subsidy to firms employing low-income 16-17 year olds	Yes	No	No

5.1.2 The Workshop

The Workshop program provided the pool of youth who, if hired, would qualify eligible firms for the voucher subsidies. Counseling and job placement services were the key components of the program. The program was premised on the belief that youth need to be assisted in the development of self-confidence that would facilitate future contacts with employers.

Youth were counseled on an individual basis. The sessions were scheduled according to the needs of the client. On the average, youth attended six counseling sessions and one workshop session per month of program attendance.[1]

Job placement services provided a channel to communicate local labor market information to youth in the program. Youth were exposed to the "job bank" that consisted of a current list of local job openings for youth. The objective was to match the needs of employers in the community to the interests, experience and skills expressed by the youth through the counseling sessions. The job bank developed and updated by program counselors and job developers.

Once counselors received a specific job request from a participating youth, the information was recorded on a file card that was sent to the job developer, and circulated among those employers who were being contacted at the time. If a specific job opening was available, counselors contacted youth to discuss the details of the job being advertised.

In addition to counseling and job placement, all youth in the program were expected to attend a minimum of one placement skill workshop. The goal of the four workshops offered was to teach youth practical job hunting skills that would make job search more efficient, i.e., how to identify employers, fill out an application, write a resume, conduct an interview, etc. Materials used for the workshops were developed by the program staff and include: instructions to fill out an application, a sample application, systematic job search instructions and format, and a list of questions that prospective employers may ask. Youth who received a high score in the proficiency test developed for each workshop could be exempted from a maximum of three workshops.

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[1] Data Source: Report from YES to Department of Labor, December 1981. This program, like the Job Factory, was evaluated by CEIS. See, Hahn et al.

Some of the issues discussed in the workshops included:

- Dealing with a job application
- Dealing with limited past experience or limited skills
- Personal presentation and appearance during job interview
- How to listen
- Specific questions to ask during interview
- What the employer expects of the interview
- Reviewing stress questions that may be asked during job interview.

5.2 Evaluation of the Wilkes-Barre Job Search Voucher Project

The heart of the Wilkes-Barre project was to be a study of how employers responded to the vouchers and also to the effort to encourage them to use TJTC. This section will first discuss the treatments applied to employers and their responses. It will then consider the operations of the Workshop run by YES which provided the pool of youth that would qualify firms for the voucher. Finally, it will consider the costs of the Wilkes-Barre project. For Wilkes-Barre process and impact results will both be discussed together in this chapter.

5.2.1 Employer Treatments and Their Impacts

5.2.1.1 YES Contacts with Employers

YES contacts with employers involved three tasks: 1) job development for youth in the Workshop; 2) promotion of the use of TJTC for 18-24 year olds in or out of the Workshop; 3) encouraging the use of vouchers for 16-17 year olds in the Workshop.

In contrast with the Cambridge Job Factory, the Workshop did use job development. The job development activities were funded by the Department of Community Affairs. Each YES staff person was required to contact employers to build up a job bank. The staff were not restricted to firms in the study sample. Indeed, the only restriction was that firms in the control group would not be approached for job development. YES was assisted by the Office of Employment Services which also engaged in job development and which made its job orders available to the Workshop program. Employers in the job bank included fast food establishments, banks, retail establishments and factories. Counselors tried to steer youth away from factory work by informing them of restrictions on age, experience and education. Secretarial jobs were also discouraged because the public school secretarial training is too far below the standards needed by industry. Therefore the participants were encouraged to apply for such positions as sales clerks, cashiers, bank tellers, short-order cooks and counter clerks.

The experimental design required additional tasks by the job developer in contacts with employers in the voucher and TJTC promotion groups. Those in the voucher group had to be informed of their eligibility for voucher subsidies if they hired 16 or 17 years olds from YES. Those in both treatment groups were encouraged in advance as well as at the time of the contact with the job developer to use a TJTC voucher for 18 or 19 year olds. Although advance contacts with employers in the two treatment groups started late due to administrative problems, the job developer from YES was able to compensate for the initial delay. All 250 employers assigned to the treatment groups had been contacted at least once by May, 1981. The numbers of contacts and recontacts is reported in Table 5.2.

Table 5.2

Number of First Contacts and Recontacts

	1st Contact	Recontact
Voucher Group	125	196
TJTC Promotion Group	125	215

Recontacts of treatment employers started in December, 1980. A year later, the job developer had completed 411 recontacts of sampled employers.

5.2.1.2 Impacts of Employer Treatments

Several sources of information were planned to obtain information on employer responses. Employers were to be surveyed by the research contractor. Information on the extent of voucher use would be obtained from YES records. Data on the use of TJTC would come from records of the Office of Employment Security.

The research design called for interviews with employers assigned to the two treatment groups and the control group. There was to be a baseline survey and a follow-up. Although the baseline survey was completed, it proved to be so difficult for the researchers to make contact with employers that the follow-up survey could not be conducted. As it turns out, programmatic data from YES and the Office of Employment Security give a reasonable picture of employer response; the baseline survey gives some further insights into the reasons for the observed response.

Consider first the data from YES records on the number of firms claiming voucher payments for hiring 16-17 year olds. Only 3 firms out of the 125 in the Voucher group took advantage of the bonus. A fourth firm, not originally in the group, requested the opportunity to use the voucher; the request was granted to test the voucher payment mechanism, given that so few firms were claiming vouchers. These 4 firms hired 5 out of the 479 youth in the Workshop. Ideally, we would have wanted to measure whether the voucher contributed significantly to the employment of 16-17 year olds by Voucher Group firms in comparison to Control Group firms. Since the voucher itself went virtually unused, it could not have had any significant effect on employment.

Now consider data from records of the Office of Employment Security on the use of TJTC among firms in the three groups. Precisely one firm from each of the employer groups used TJTC for youth it hired. The employer in the voucher group actually claimed the credit for 7 youths, but the other firms claimed it for just one youth apiece. There was thus no impact from the effort to promote the TJTC among the treatment groups: the use of TJTC was negligible both for them and for the control group.

The baseline study, even though it was conducted before treatments began, does provide useful insights into employer behavior. A summary of background data on firms, broken down by employer treatment group, appears in Table 5.3. This survey included questions on the attitudes and behavior of Wilkes-Barre firms toward hiring youth. Fifty-eight percent of employers scheduled for interviews did provide complete information (n = 216). Another 9% were out of business and 33% refused to answer the questions.

Employers were asked about their present and future hiring practices regarding 16-17, 18-24, and 25 and older workers. Overall, 72 percent of sampled firms have not employed any 16-17 year old workers in the last 3 calendar quarters, while 27 have employed at least one 16-17 year old. The percentage of firms employing at least one older youth (18-24) is higher--74 percent compared to 26 percent of firms that have not employed any youth in this age group. Considering new hires, there is a slight difference between the percentage of companies who have not hired any 16-17 year old workers (80 percent) and companies that do not employ 16-17 year olds. Sixty-eight percent of employers report no company vacancies (for all workers) in the current quarter. On the average employers report 11 applicants for each entry level opening (among all ages) and 24 percent of employers do not demand any low-wage applicants.

These figures show that many firms do not hire 16-17 year olds. On the other hand, about 20 percent of sample firms had recently hired 16-17 year olds and nearly half had hired 18-24 year olds. The composition of the sample confirms that the treatments did cover many firms that normally hire young workers. Thus, the lack of response by firms to vouchers or TJTC subsidies cannot be attributed entirely to the employment patterns of the firms exposed to the subsidies.

Table 5-3
Background Data from the Baseline Survey of Employers*

	Voucher Experimental Group I	Voucher & TJTC Experimental Group II	Control Group	Total
Size of Sample	73	73	70	216
Mean No. of Full-Time Workers	51.7	60.0	53.8	55.3
Mean No. of Part-Time Workers	5.3	28.0	8.2	14.3
Mean Amount of Salaries ($)	$287,485	$749,237	$335,000	$463,631
Mean Gross Sales ($)	$1,457,452	$2,267,524	$1,555,917	$1,767,331
Percent Not Employing 16-17 year olds	69.5	78.9	70.4	72.9
Percent Employing at Least One 16-17 year old	30.5	21.1	29.6	27.0
Percent Not Employing 18-24 year olds	23.3	24.1	31.6	26.3
Percent Employing at Least One 18-24 year old	76.7	75.9	68.4	73.6
Percent Not Hiring Any New 16-17 year old	79.2	82.4	78.4	80.0
Percent Hiring at Least One 16-17 year old	20.8	17.6	21.6	20.0
Percent Not Hiring Any New 18-24 year old	63.0	43.4	44.0	50.1
Percent Hiring at Least One 25+ year old	44.3	55.1	51.9	50.4
Percent with Vacancies Current Quarter	30.0	36.0	33.0	33.0
Average No. of Applications per Entry Level Position	8.7	.5	11.2	11.2
Average No. of Vacancies Requiring Little Experience	2.1	7.2	2.9	4.1
Average No. of Entry Level Workers Needed Now	1.8	1.8	1.9	1.8
Hours per Week 16-17 year olds	9.9	7.6	7.4	8.2
Hours per Week 18-24 year olds	30.1	27.7	26.7	28.1
Hours per Week 25 and over	38.0	36.2	37.6	37.3

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* Information provided on last three calendar quarters from time of interview.

To administer the voucher, a verification system was needed. Verification of hours worked by youth employed in voucher firms was done through time sheets provided by YES, as well as random unexpected visits by the job developer. Employers provided work schedules a week in advance to allow time for verification. Voucher payments were made weekly on the Friday following the end of the employed youth's working week. Checks were personally delivered by the job developer. The personal approach to voucher processing and administration may not have been possible in the event of a higher takeup rate. Our information from YES on voucher use comes from the verification process.

5.2.2 The Job Search Workshop

Since the voucher program was linked to the Workshop, this section will discuss its operation. There was no control group for evaluating Workshop effectiveness since this had already been studied in the earlier evaluation. Hence this section presents a process analysis of the Wilkes-Barre Workshop.

5.2.2.1 Recruitment and Enrollment

During the first 3 months of operation, the rate of enrollment into the program was below planned levels. The 15-month plan called for 500 youth to participate in JSA, or an average of 33 youth enrollees per month. Table 5-4 presents the monthly enrollment rates in Wilkes-Barre. After four months of operation only 76 youth had attended the program. However, beginning January 15, 1981, a new project manager at YES made significant progress in increasing outreach and participation. He was able to set specific goals for the agency and mobilize the staff to comply with the minimum standards established by DOL. Within 4 weeks of his arrival in January 1981, a total of 76 youth were enrolled in the program, a 100 percent increase from the previous 3 months enrollment level.

Table 5-4

Wilkes-Barre New Enrollments Per Month

	Actual Number	% of Plan*
October 1980	--	
November	15	45
December	10	30
January 1981	51	--
February	80	--
March	50	--
April	46	--
May	40	--
June	36	--
July	40	--
August	35	--
September	32	97
October	20	61
November	24	73
December	--	
Total	479	

*Planned number equals 33 youth each month.

Several changes took place within the agency. More efficient intake procedures were developed to reduce the waiting period between application and enrollment; these, in turn, helped to reduce attrition occurring at the time of program application. All staff in the agency were trained to conduct intake interviews as a way to speed up applications whenever counselors were involved in other programmatic activities. In an effort to reduce time spent answering unnecessary questions, program operators sent letters to parents of applicants explaining the program and requesting supporting documents to establish income eligibility. A worker from the Office of Employment Security (OES) was subcontracted on a part-time basis to certify applicants and to refer youth from OES to YES. Having a certifying worker on the premises helped reduce backlogs of applicants. As a result of the administrative changes, the average waiting period between application and certification declined from 18 to 5 days.

One limitation that the Workshop program faced was the high unemployment rate for adults and youth in Wilkes-Barre. The overall unemployment rate in December 1981 was 11.7 percent (seasonally adjusted), well above the 8.5 rate Pennsylvania and the 8.8 rate for the country as a whole. Job creation and development in a depressed economy has been a challenge to a youth employment agency like YES. Youth awareness of the difficulties encountered in finding jobs may result initially in increasing program enrollment levels. On the other hand, it may also discourage youth from participation in program activities that do not guarantee a "real" job at the end of the training period.

While some youth who might have benefited opted out of the program, others were placed into it who had special problems. Although the program had not been designed to serve youth with special needs, close to 20% of the population served by YES was referred by agencies that serve special groups. (Law enforcement, drugs and alcohol, and handicapped). This switch in the composition of target groups may have occurred in response to pressure placed by the funding agency regarding enrollment levels.

There was general agreement among counselors that the program was not geared to handle clients with serious behavioral and emotional programs. Mentally retarded clients were especially difficult. For those clients with motivational and attitudinal problems the staff would explore ways to make the workshops more interesting, experimented with different ways to schedule activities, and took extra time to call the clients at home. Those who were deficient in a job-related skill were referred to CETA. Young mothers who needed child care were referred to an agency serving primarily unwed mothers; this agency would in turn arrange for day care services. The respondents felt that the drug and alcohol abusers did not pose any significant problems since the Catholic Social Services' drug and alcohol program, and the prison release program referred only those people who they considered to be "good risks". The problem with this group was that employers were reluctant to hire them. Youth in this category had to overcome an additional employment barrier. One of the ex-offenders was placed only because he had a previous positive work record.

5.2.2.2 Structure of the Workshop Program

Except for the placement workshops, activities were unstructured and varied according to the needs of youth. On the average, youths spent 8 to 8.5 hours in the program divided as follows: 6.5 in individual counseling sessions, and the remaining hour and a half in placement workshops. Youth were required to attend four placement workshops. Attendance could be waived if a proficiency test was successfully completed. However, 62% of eligible youth attended at least one workshop and 35% of all eligible youth completed all four sessions. Time spent in the program was recorded on an exit form, part of the Individual Participant Profile (IPP). In general, time spent in the program was limited. Although service hours were low, they were in line with other pre-employment/placement programs for youth (see P/PV's evaluation of JFY and 70001 Ltd).[2]

Low attendance at placement workshops, even in periods of high enrollment, was a concern among program staff, as well as the research and funding agencies. One difficulty may be that the Workshop program competed with CETA for youth. CETA has an advantage in that it pays the minimum wage for the time spent in the program. YES program operators recognized the pay difference as a barrier to attracting youth to Workshop program activities. Philosophical principles that have prevailed since the agency's origin kept program administrators from moving in the direction of cash payments for program attendance. Interventions to improve the content of the Workshop activities were considered as a feasible means of attracting more participants and increasing the amount of time that they spend in the program. The inclusion of audio-visual devices, as well as experiments with motivational techniques and different time schedules were tested by the staff in the last two quarters of program operation. However, the amount of time that youth spent in the program remained limited.

How did the participants assess the program? We looked at this question by examining responses from the Program Completion Survey. Table 5.5 presents the most attended services, as well as the program components most helpful to youth participants.

Personal counseling and job counseling were the most frequently mentioned and most helpful services. This finding is consistent with the conclusions presented in the previous section, indicating that youth spent most of their program time in counseling activities. Contacts and interviews with potential employers were somewhat less attended and helpful in the eyes of youth. Resume writing and mock interviews followed in the list of priorities. Group review and discussion, together with letter writing participants considered less popular and less helpful.

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[2] Public/Private Ventures, Final Report, "The Impact of Pre-Employment Programs on Disadvantaged Youth", 1982.

Youth were asked open-ended questions about what they liked and disliked most about the program. The majority of youth liked some program component and a few list personal reasons that make it attractive. Among the most disliked aspects of the program were such disciplinary aspects as the requirement to contact a minimum number of employers and to place cold calls to potential employers. Forty-seven percent of respondents to this question (n = 449) found the program very helpful, another 40% claim that it helped them a little, and the other 6 percent claimed it was of no help.

5.2.2.3 Work Experiences Among Workshop Participants

The Workshop treatment had no control group in Wilkes-Barre so that we cannot identify the contribution of the treatment to employment behavior. However, the youth in the Workshop were surveyed three times. Since many of them did find work, this section reports on their employment record.

It should be noted that while the Cambridge Job Factory program was part of the local CETA Prime Sponsor delivery system, the Wilkes-Barre program was community based. Although it received YEDPA funds, it competed for low income youth with the local CETA agency. As a consequence, the Wilkes-Barre program accepted some youth from families with income slightly above the CETA/YETP eligibility guidelines. To adjust for this feature of the program, data are presented separately for CETA eligible and above-CETA-limit youth.

Table 5.5

Rank Order of Wilkes-Barre Workshop Program Components

(by number of youth who check each category)

Program Component	Service Attended Most Frequently	Most Helpful
Personal (Job) Counseling	(1)	(1)
Personal Counseling	(2)	(2)
Contacting Potential Employers	(3)	(3)
Interviews with Potential Employers	(4)	(4)
Resume Writing	(5)	(5)
Mock Interviews	(6)	(6)
Group Review of Past Work Experience	(7)	(7)
Letter Writing	(8)	(9)
Group Discussion of World of Work	(9)	(8)

Data on the proportions who had had jobs between follow-up appear in Table 5.6, while characteristics of the jobs found are shown in Table 5.7. Table 5-8 presents information on the intensity of search among Wilkes-Barre youth.

5.2.2.4 Administration of the Workshop

The Workshop voucher program experienced changes in administrative leadership, as well as considerable personnel turnover. The acting director resigned toward the end of the first contract year. Thus, the start-up of the workshop program lacked leadership. After the new director was hired in January, 1981, DOL required a minimum number of enrollments per month as a condition for continuation of the grant contract. The new director was able to establish a professional relationship with the Board of Directors of YES and his credibility was built upon the progress of the program. He was able to pull the staff together and to promote the idea of "working for survival". In a sense, staff members were initially motivated by the threat of losing their jobs. Once the results of the new approach began to show in terms of enrollment and job placement levels, morale among the staff improved considerably. However, during the last quarter of program operation the enthusiasm among the staff began to wear off for obvious reasons. YES would close down as a result of the termination of the DOL contract. Thus, finding a job became a first priority among counselors and administrators.

The original staff consisted of the assistant director, job developer, information manager, 2 counselors and a secretary. During the course of the year, the assistant director left the agency, a new director was hired, one of the counselors became information manager, a new counselor was hired, and the secretary became executive assistant to the director. As a result, the average time that counselors stayed in the same job was four months.

Table 5.6

Percent of Youth Who Held Jobs between Followups in Wilkes-Barre

	Group I[a]	Group II[b]
Have Had Job at 1st Followup (12 weeks after program exit)	56.3 (174)	71.2 (236)
Have Had Job at 2nd Followup (24 weeks after program exit)	66.3 (95)	77.4 (159)
Have Had Job at 3rd Followup (36 weeks after program exit)	71.2 (73)	83.3 (66)

[a] Group I consists of youth whose family income met CETA/YETP eligibility guidelines.

[b] Group II consists of youth whose family income exceeded the CETA/YETP eligibility guidelines.

Table 5.7

Characteristics of Post-Enrollment Job at Each Consecutive Follow-up in Wilkes Barre

	Program Completion Survey		1st Follow-up		2nd Follow-up		3rd Follow-up	
	Group I	Group II	Group I	Group II	Group I	Group II	Group I	Group II
Mean Hourly Wage	3.28 (86)	3.34 (134)	3.47 (45)	3.37 (78)	3.60 (29)	3.44 (49)	3.63 (15)	3.70 (16)
Mean Weekly Hours	31.3 (81)	28.6 (134)	31.8 (48)	32.4 (78)	31.4 (29)	34.0 (50)	31.4 (15)	38.0 (17)
Mean Weekly Earnings	105.2 (81)	96.2 (132)	116.8 (45)	110.5 (78)	113.3 (29)	118.7 (49)	116.6 (15)	141.6 (16)
Percent full-time*	71.6 (81)	54.5 (134)	72.9 (48)	74.4 (78)	75.9 (29)	80.0 (50)	66.7 (15)	100.0 (17)

*Full-time defined as 30 hours per week or more.

Table 5.8

Intensity of Search Among Wilkes-Barre Employed Youth at Each Follow-up by Group

	Program Completion Survey		1st Follow-up		2nd Follow-up		3rd Follow-up	
	Group I	Group II	Group I	Group II	Group I	Group II	Group I	Group II
Average number of applications filled	4.6 (66)	4.2 (108)	9.1 (31)	7.8 (49)	4.7 (15)	9.1 (27)	7.5 (12)	9.0 (10)
Average number of interviews	2.7 (36)	1.7 (52)	3.2 (21)	2.0 (25)	2.8 (6)	3.1 (18)	3.6 (6)	1.8 (6)

This back and forth switch of personnel may have created instability and confusion among the staff as well as among the youth served.

YES has been out of operation since December 31, 1981, after the contract with DOL came to an end. Since coming to office, the YES director sought different funding grants to keep the agency running. However, the political timing was against his success. The Office of Youth Programs within DOL went out of business at the same time as YES, and demonstration grants for youth employment agencies became more scarce and competitive.

5.3 Program Costs

Program costs for Wilkes-Barre appear in Table 5-9. Given the 479 youths who participated in the Workshop program, cost per Workshop participant was $374. The cost per youth finding a job as of the first follow-up was $577. Since there was no control group of youths in Wilkes-Barre, we have no estimte of cost per net job found.

In view of the absence of any significant impact of the vouchers on employer behavior, it would not be meaningful to present any cost effectiveness measure for the employer vouchers.

Table 5-9

Program Expenditures

Workshop Expenses	
Personnel: Counselors and Fringe Benefits	$132,573
Rent	7,259
Telephone	2,749
Travel	8,584
Printing/Xerox/Advertising	2,016
Video	2,569
Supplies	2,591
Furniture/Equipment	6,130
General & Administrative	4,033
OES Subcontract	10,727
Total Workshop Expenses	179,231
Voucher Bonuses	1,813
Total Wilkes-Barre Costs	$181,044

Chapter 6

Conclusions and Policy Implications

The chronic nature of the youth and structural unemployment problems has stimulated policymakers to search for approaches that go beyond the remedial education and training strategies. Because even those who completed education or training could not find jobs or increase their wage rates, Federal policy began to utilize demand-side as well as supply-side interventions. The idea of selective demand policy was to shift the structure of demand for labor toward groups of workers who normally experience high unemployment. Since the added demand would be channelled toward workers already in excess supply, the selective demand approach could achieve reductions in unemployment with less inflationary pressure than could general demand stimulus.

The Federal government has used direct job creation as its primary method for implementing the selective demand policy. Under public service employment, work experience, and summer employment programs, the Federal government has paid the full cost of hiring structurally unemployed workers for jobs in the public or nonprofit sectors of the economy.

Employer wage subsidies have been adopted as an additional tool for helping the structurally unemployed, largely because of two apparent advantages over public employment programs. Wage subsidies seem to have a cost advantage over public employment since they allow the government to pay less than the full salary and overhead required in public jobs programs. A second advantage is the higher rate of transition to unsubsidized employment expected from having private firms instead of government agencies hire disadvantaged workers.

The key criticism of the wage subsidy approach is that firms can receive subsidies for hiring workers they would have hired in the absence of the program. A second criticism is that firms pay little attention to the program since it operates outside their normal recruitment policies. Ignoring the program will be especially common when only a small segment of the work force qualifies for the subsidies.

Given the difficulty of using small subsidy programs to alter the behavior of firms, some have suggested channeling the subsidy directly to disadvantaged workers. Although most proposals for wage subsidies to workers stress the income supplement function, worker subsidies can theoretically generate increases in employment.

In spite of actual experience with employer wage subsidies (the TJTC and WIN tax credits) and several studies of worker wage subsidies, there is little solid evidence concerning the net impact on employment of either kind of subsidy. This evaluation provides the first evidence on the net effects of employer and worker subsidies that is based on actual responses by workers and firms. Although the experiments were small and each operated only in one site, the results are interesting and highly relevant to policy, especially in light of the decision by the Congress to continue the TJTC beyond 1981.

This chapter summarizes the findings from the experiments and discusses their implications for policy.

6.1 The Findings

The primary purposes of the experiments were to test two subsidy programs and two behavioral responses. In Cambridge, the question was whether subsidizing the wages received by young workers stimulated them to take jobs.

In Wilkes-Barre, the question was whether subsidizing employers to hire low income youth increased their tendency to hire such workers. The basic results were that:

--subsidizing young workers raised their employment; but

--subsidizing employers had no impact on youth employment.

The offer of subsidies clearly had no effect on employer hiring behavior. With virtually no employers taking either the special vouchers or the TJTC, the lack of response was unambiguous. While the weak labor market in the experimental site may have contributed to the absence of any voucher effect, the reasonably good employment experience of youth going through the job placement program casts doubt on the importance of this explanation. The youth in the Wilkes-Barre experiment had employment levels as high as youth in Cambridge, where a positive experimental effect did occur.

In one sense, the employer subsidy program in Wilkes-Barre had a potential advantage over a national program. The TJTC and WIN tax credits have operated largely as employer-initiated programs. So, for employers to respond to the program by hiring more disadvantaged workers, they may have to make special efforts to recruit and screen eligible workers. In Wilkes-Barre, the YES organization not only promoted the program with each employer in the treatment group, but also stood ready to provide eligible applicants from its pool of participants.

The failure of subsidies to exert an impact on employers is consistent with the low extent of employer participation in national tax credit programs. Although no important study has attempted to estimate the effects of the TJTC and WIN tax credits on employer hiring of disadvantaged workers, it is clear that many firms who employ eligible workers and qualify for tax credits do not claim the subsidies. The only group of workers for whom claims are a high percentage of hires is youth from cooperative education programs. This group may elicit more interest from firms because they are not labeled as disadvantaged. Perhaps more important, the administration of TJTC directly by cooperative education programs means that employers who normally use coop youth do not have to alter their recruitment policies to reap the advantages of the credit.

Neither the TJTC's apparent success with coop students nor its weak performance with other groups provides any evidence about the number of workers firms hired in response to the TJTC. While the net impact of TJTC remains an open issue, the results from the Wilkes-Barre experiment suggests a highly negative conclusion.

In contrast, we observed a significant, positive effect from making subsidies available directly to young workers. Not only did the experimental group eligible only for the vouchers exhibit higher employment rates than the control group, but the vast share of voucher-only participants who did find jobs actually claimed voucher payments. The negative aspect of the results of the voucher treatment comes from the experience of youth who had access to the combination of the Job Factory and the voucher. These youth gained an initial employment advantage over the other two groups, but their advantage eroded to the point where their employment levels were no higher than those of the control group. It is not clear why the voucher's impact appeared to persist for voucher-only youth, but not for youth exposed to a combined treatment.

The results of the Cambridge experiment concerning the effect of the Job Factory also were consistent with findings from other experiments. Participation in the Job Factory did raise employment levels initially, but the effects were apparently transitory.

6.2 Implications for Policy

Given the small, single site nature of the experiments, we must be cautious in drawing implications and making generalizations. The fact that the demonstrations utilized an experimental design does add some weight to the importance of the findings. Nevertheless, the results can have relevance to national policy only in the context of other studies of program effectiveness and the behavioral responses by workers and firms.

The experiment with vouchers and job search assistance for youth sustains one policy and analytical implication and provides initial evidence concerning another. The Job Factory's initial, but transitory effect indicates that information gaps and low job search intensity affects the timing but not the long-term success of youth seeking jobs. To the extent that programs may be able to follow up on the initial success of the Job Factory with other kinds of interventions, job search programs could play a role in lowering unemployment rates of disadvantaged youth. However, taken by itself, the job factory intervention's positive effect wears off over a 3 to 5 month period.

Because this experiment is the first one involving voucher payments to workers, the positive effects we observed have value primarily in suggesting future research, demonstration, and policy work. The findings do indicate that the availability of voucher payments encouraged youth to take jobs at lower wages than they would have without the subsidies. Moreover, this effect on reservation wages contributed to employment gains for those youth exposed to the voucher payments. To the extent that these results are representative of the youth labor market, many youth do not find jobs because they are unwilling to accept low wage employment.

The nonresponse by employers to the offer of subsidies is consistent with a few interpretations. One is that firms are not particularly sensitive to small and temporary changes in wage rates. Such a conclusion is in conflict with a variety of empirical studies indicating that firms do adjust their hiring in response to relative and absolute wages. A second, more restricted interpretation of the nonresponse by employers is that the transaction cost, risk, and labeling aspects of subsidies for hiring disadvantaged workers outweigh the monetary value of the subsidies. Support for this conclusion comes from a survey of firms concerning targeted employment subsidies. David O'Neill found that firms who showed little or no interest in subsidies for hiring a disadvantaged class of workers said they would alter their hiring behavior in response to a subsidy for low wage workers. The Wilkes-Barre results lend support for the idea that highly targeted subsidies are unlikely to yield gains for disadvantaged workers.

Appendix A

Demographic Characteristics of Youth Participants in Cambridge and Wilkes-Barre

Demographic characteristics of the sample are summarized in Table A-1. The total sample upon which these analyses are based is 901 youth.

Although there is only about a six-month difference in average age between the youth in Cambridge and Wilkes-Barre sites, there is a larger percentage of youth 18-24 years group in Cambridge than in Wilkes-Barre, where the largest percentage of youth are 16-17 years of age. Moreover, a much larger percentage of the Wilkes-Barre youth are in-school; less than 1% of the youth were in-school on average, and a higher percentage (over 50%) were dropouts and the remainder were high school graduates. Males are predominant in both the Wilkes-Barre and the Cambridge samples. Differences in racial characteristics between sites are the most dramatic. Nearly all the participants in Wilkes-Barre are white. This reflects the fact that Wilkes-Barre is situated in the predominantly white community of Luzerne County. Cambridge, on the other hand, is more metropolitan and is populated by a larger number of people from diverse racial and ethnic background. A significantly higher percentage of enrollees, therefore, are black and hispanic.

In terms of economic status, youth assigned to all cycles in Cambridge and Group I in Wilkes-Barre meet the CETA/YETP eligibility guidelines. Youth assigned to Group II in Wilkes-Barre come from families with slightly higher incomes. Note that a higher percentage of the youth in Wilkes-Barre Group 1 have had work experience or have been dependent on public assistance, compared to youth assigned to Group II in Wilkes-Barre.

Another difference between the two sites is the status of youth with respect to the courts. A higher percentage of youth in Wilkes-Barre Group I are ex-offenders than Group II, and Cambridge youth.

Most youth in both communities have had some previous work experience and at least one third have been enrolled in CETA programs at some time prior to enrollment. The percentages are slightly higher, however, in Cambridge than in Wilkes-Barre. Differences may be due in part to the differences in organizational context between the two programs. Whereas the Cambridge program is part of the local CETA Prime Sponsor delivery system, the Wilkes-Barre program is community-based, and although it received YEDPA funds it must compete for low income youth with the local CETA agency.

In general, characteristics between the three groups in Cambridge--experiment, voucher-only, and control--do not markedly differ. The one exception to be noted is the difference in economic status. The average income level appears to be higher in both the voucher and control groups, as compared with the experiment group. Approximately 56.4 of the youth in the experimental group come from families at 70% or less than the lower living standard, compared with only 1% and 8% in this category of the voucher and control groups respectively. Also, a slightly higher percentage of youth in the Cambridge experiment group are ex-offenders.

Table A-1

Sample Description of Demographic Characteristics

	Cambridge			Wilkes-Barre	
	Experiment	Voucher	Control	Group 1	Group 2
N of Participants	186	130	108	219	260
Age: $\overline{X}$ Years	18.1	18.1	18.2	17.0	17.0
Percents: 16-17	41.0	41.7	35.2	70.6	71.0
18-24	59.2	58.3	64.8	29.4	29.0
Sex: Male	61.8	58.5	53.3	60.3	51.7
Female	38.2	41.5	46.7	39.3	47.9
Race: White	47.3	48.0	53.8	92.2	98.1
Black	36.0	37.2	35.8	6.8	1.2
Hispanic	10.7	11.6	6.6	1.0	--
Other	6.0	3.2	3.8	--	0.7
Family Status:					
Family Head	6.5	5.5	6.8	7.3	3.5
Family Member	69.7	62.5	62.1	73.9	87.5
Independent Member	23.9	32.0	31.1	18.8	8.9
Educational Status:*					
H.S. Student	--	--	1.9	48.6	58.3
H.S. Leaver	48.6	52.7	51.0	30.1	12.0
H.S. Graduate	36.2	28.7	29.8	14.8	19.7
Ex-Offender Status, Prison Records	17.3	12.6	14.0	25.1	7.0
Public Assistance: AFDC, SS, Other	34.4	37.6	44.7	53.4	3.4
Previous CETA Experience: Yes	39.5	42.4	41.2	38.7	11.5
Previous Work Experience: Yes	72.6	89.2	93.5	70.3	56.0
Economic Status*					
70% Lower Living Standard	56.4	18.9	8.7	100.0	1.2
71-85% Lower Living Standard	38.5	81.1	87.0	--	18.5
86% - More	5.1	--	4.3	--	80.3
Mean Program Hours	104	--	--	7.6	8.4
Mean Program Wages ($)	367	--	--	--	--

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*Percentages do not add to 100. Missing categories excluded.

Table 3-3

Cambridge Job Factory Participation by Cycle

	Cycle I	Cycle II	Cycle III	Cycle IV	Cycle V	Cycle VI	Total
ean ours	100	125	87	112	105	123	104
umber	21	25	36	21	25	20	148